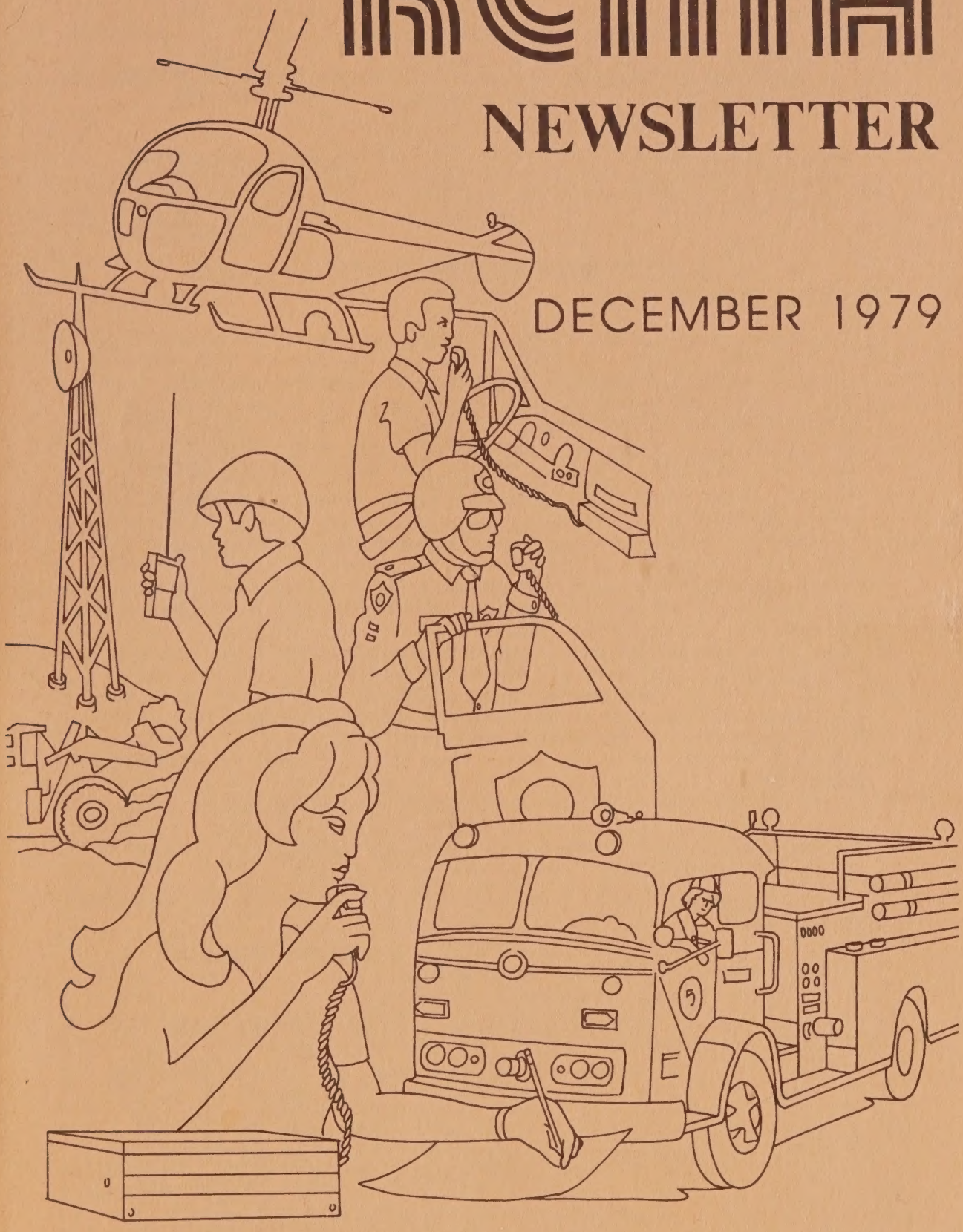
RCMA

NEWSLETTER

DECEMBER 1979



FIRST NATIONAL AND INTERNATIONAL ORGANIZATION
OF MONITOR RADIO LISTENERS

RCMA BOARD OF DIRECTORS

PRESIDENT
Jerry Short (CA-OR-002)
(714) 772-1259

VICE PRESIDENT
Bob Leef (CA-OR-033)
(714) 737-5333

SECOND VICE PRESIDENT
Iden Rogers (CA-RI-001)
(714) 688-1168

SECRETARY
Noel Robertson (CA-LA-083)
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TREASURER
Linda Rogers (CA-RI-022)
(714) 688-1168

NEWSLETTER EDITOR
Iden Rogers (CA-RI-001)
(714) 688-1168

ANARC REPRESENTATIVES
Iden Rogers (CA-RI-001)
Jerry Short (CA-OR-002)
Bob Leef (CA-OR-033)

FOR YOUR INFORMATION

1. All club business, unless otherwise noted, must be addressed to: RCMA, P.O. Box 4563, Anaheim, CA 92803. This includes matters that relate to renewals, changes of address, Newsletter delivery problems, etc.
2. Input to the RCMA Newsletter must be mailed to the proper editors whose addresses are included in the column headings. If in doubt or if no particular column seems to be appropriate, send it to: RCMA, P.O. Box 4693, Riverside, CA 92514. Please do not include matters of club business.
3. RCMA Newsletter back issues (reprints) are no longer being offered for sale to members.
4. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address in the upper left corner. Put this and your instructions for remailing in another envelope and mail to: RCMA, P.O. Box 408, Earp, CA 92242.
5. It would be appreciated if you would include your RCMA membership number with all correspondence to the Newsletter Editors or to Headquarters.
6. If you require a reply when writing to RCMA Headquarters or one of the Editors you MUST include a self-addressed stamped envelope.
7. Please write only on one side of the paper.
8. Please do not combine in one letter items that should go to different addresses.
9. If you are inclined to type what you submit to the Newsletter, please do not exceed a 6¼ inch column width and please single-space. Doing this may save an editor from having to retype the material. Please do not use "*script*" type.
10. Your RCMA membership number and expiration date appear on your Newsletter mailing label.
11. Your copy of the Newsletter should arrive between the 2nd and 3rd Friday of the month for which it is dated.

The RCMA Newsletter is published monthly by the members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, P.O. Box 4563, Anaheim, CA 92803. Subscription rate/membership fee is $8.00 per year for U.S. residents and $10.35 (U.S.) for persons in all other countries (dues subject to change).
Information contained herein is primarily obtained from members and does not necessarily present the position or reflect the opinion of the RCMA as a whole. The RCMA Newsletter editors and officers are not responsible for the accuracy or validity of information contained herein. Material and comments presented in the "Monitoring and the Law" column are not to be construed as legal interpretations or legal advice. Reproduction of any material in this Newsletter is authorized providing the source (RCMA) and the address are given (this excludes direct photocopying).

[redacted] ISSUE NO. 47

** Calendar **

DECEMBER 17, MONDAY, JANUARY NEWSLETTER DEADLINE

DECEMBER 21, FRIDAY, 8:00 P.M. General Membership Meeting:
Mercury Savings and Loan
Valley View and Lincoln Ave., Buena Park, CA.

A guest speaker is expected from the Coast Guard Rescue Coordination Center in Long Beach. Radio communication systems and frequencies in use by them will be discussed.

Reports of Meetings and Officers

SUMMARY OF BOARD OF DIRECTORS MEETING OCTOBER 26, 1979

1. Status of incorporation - Secretary should be able to meet with attorney in next two weeks.
2. Secretary to send letter of thanks to Gary Thornhill for taking pictures at the last general meeting.
3. We recommend to next years Board the consideration of a possible paid part-time bookkeeper to assist with the ever-increasing work load of records associated with the Treasurers office.
4. Ernie Von Ibish and Noel Robertson have volunteered to run for office. President Short is to contact Don Gensicke as a possible Nominating Committee Chairman. Nominations are due in three weeks because of Newsletter deadline. If many candidates are found and if there is time to do it, the Board of Directors may suggest those they feel are most qualified.
5. President Short spoke to Terry Moroz at the Anaheim Post Office again (4th time) about recent slowdown in mailing of our Newsletter.
6. Secretary was requested to send a short note of appreciation to C.H.P. in Los Angeles for hosting the tour-meeting this month in spite of adverse circumstances.
7. A lengthy discussion was again held regarding shortage of sufficient volunteers to keep the newsletter going, and lack of candidates for office in the coming election.
8. Our ballot will contain a choice for naming the Newsletter: a) The Monitor, b) The R.C.M.A. Monitor, c) R.C.M.A. Newsletter (as is), d) (write in) _____.
9. After a general budget forecast and reviewing operational expenses including the increased Newsletter size, an increase in dues was approved effective March 1980. New rates will be $10.50 for the 50 U.S. States, and $12.85 Foreign, payable in U.S. Currency.
10. Secretary is to notify CB Magazine immediately of above, also advising "Sample copy of Newsletter $1" to be inserted in our "information box" that they publish in the scanner section.
11. Secretary is to secure a rubber stamp, possibly with changeable type, to use in updating membership applications and information sheets with the new dues rate.
12. First Vice President is to advise Gene Hughes that R.C.M.A. zip code for P.O. Box is 92803, not 92804 (in So. Cal. edition).
13. Treasurer reported balance of $1893.14 on hand.

Reports of Meetings and Officers (continued)

Meeting convened at 6:30 PM, adjourned at 9 PM.
Anaheim, CA. All Board members present except Noel Robertson

By substitute Secretary Bob Leef.

REPORT OF THE NOVEMBER 1979 GENERAL MEMBERSHIP MEETING

On the 16th of November, 39 members meet at 8 P.M. in the General Service Agency, Orange County (California) Communications Department building, located in Orange, California.
After brief announcements by Jerry Short, President, Noel Robertson, Secretary and Bryan Hunnell, who described a computer frequency list project that he is working on, the meeting was turned over to Fred Preble of the Communications Department.
Mr. Preble gave an excellant talk on the history of the department, beginning in 1934. He described their present system as the most advanced UHF communications system in the country.
After his talk he took the members on a complete tour of the facilities, which lasted until 10:45 P.M.

Noel Robertson
Secretary

SUMMARY OF TREASURER'S REPORT
For Period Ending November 15, 1979

Balance as of October 15, 1979			$ 1219.86
Received for membership:			
New members (99)	$ 801.70		
Renewals (25)	202.35		
Received for back issues	340.75		
Received for advertising	75.00		
Miscellaneous received	6.00		+ 1425.80
Expenses:			
November Newsletter (printing, postage, etc.)		$ 818.22	
Officers' expenses		183.42	
Miscellaneous		45.10	- 1046.74
		Balance	$ 1598.92

For a detailed report send a self-addressed stamped envelope and one extra First Class postage stamp to: RCMA, P.O. Box 4693, Riverside, CA 92514.

SUMMARY OF THE NOVEMBER 23, 1979 BOARD OF DIRECTOR'S MEETING.

The meeting was called to order in Anahein, California at 7:20 P.M., by the President, Jerry Short. All Board members were present, and Bill Ell and Bryan Hunnell attended as quests.

BUSINESS CONDUCTED:

1. The Board approved a recommendation by Iden Rogers, 2nd V.P. and Editor, that an opinion poll be included in the ballot for Officers, to consider a name change for our publication. See the ballot, elsewhere in this issue, for the proposed names of the RCMA publication.
2. A change was approved in the RCMA slogan. It will now read - "First National and International Organization of Monitor Radio Listeners".

Sect. note: The change involved deleting the word "Scanner" and replacing with "Monitor Radio".

3. This Board recommends to the incoming Board: That starting as soon as possible, the Orange County, California RCMA General Membership meetings be scheduled less often, but increase the depth and length of the programs.
4. Board meetings are changed to the second Friday of each month, starting January of 1980.
5. Approved a recommendation by Iden Rogers for a directory of "Sociable Members". See elsewhere in this issue for details from Iden.
6. The Secretary is to meet with an attorney, prior to November 30, 1979, to discuss the Incorpation of the Association.
7. The announced canidates for President, First Vice President and Second Vice President are:
   Bill Ell
   John Clark
   Joe Freezon
   Noel Robertson
8. The President will contact a C.P.A., and the Secretary will discuss with the attorney, the Board requested audit of the Associations financial records, as stated in the "Summary" of the August 21, 1979 Board minutes.

The meeting was adjourned at 10:40 P.M., with the next meeting to be at 7 P.M. on December 17, 1979, in Riverside, California.

Respectfully submitted,

Noel Robertson

Noel Robertson
Secretary

RCMA DUES INCREASE

Effective March 1st, RCMA dues will be increased from $8.00 per year to $10.50 per year for persons in the 50 U.S. states and from $10.35 to $12.85 (payable in U.S. funds) for persons outside the United States.

WHY?

1. The size and cost of the Newsletter is increasing and cannot continue to be financed at the $8.00 per year rate. The November printing and postage came to about $800. If this figure is multiplied by 12 (the number of issues in a year) and divided by 1020 (approximate number of members),you can see that this exceeds $8.00 per member. In other words, the November issue was over budget. With still increased size and the inclusion of more photographs, the cost will be higher yet. In addition to printing and postage expenses, there are other club operating expenses and the possibility of postal rate increases in 1980. The $2.50 dues increase may actually be on the conservative side.

2. At this time RCMA is experiencing an unprecedented increase in its membership which means money being received by the club is also increasing and our Treasury balance may look good but the figure is deceiving. Presently we rely heavily on money received from new members to publish each issue. If we were to completely stop gaining new members, we would only be able to publish a few issues at the present size before going broke. This is not a desirable situation and increased dues will help to insure the financial

security of the club. "SPEEDX", a fellow member club in the Association of North American Radio Clubs, in a financial statement published in their September 1979 issue states that they have $8.63 in reserve for each member for a total balance of $9420.51. SPEEDX is about the same size as RCMA.

3. Consider the alternative ---- To increase our balance on hand without increasing dues would mean that we would have to spend less. Spending less would mean that several columns would have to be discontinued and the others would have to be limited in size. Doing this would probably cause more booing and hissing than raising the dues. In response to queries in the Newsletter a few months ago regarding possible dues increases, responding members were strongly in favor of increasing dues if and when necessary.

NEWSLETTER MAILING COMMITTEE

The Newsletter comes back from the printer in boxes. One can not simply open a mail box and stuff them in. Address labels must be applied by hand to each one. Copies to foreign addresses must be put into envelopes. All copies have to be carefully sorted by zip code and bundled accordingly to comply with the rules for bulk mailing. It takes people to make this happen. We need helpers and most of all we need a new Mailing Committee Chairman to be responsible for the mailing each month. Jerry, our President, has faithfully done this job for a long time and deserves to be relieved. Will someone in the Orange County area please volunteer! It takes one evening per month plus a trip to the Post Office. If you are interested or have questions, please call Jerry at (714)-772-1259.

IT'S RCMA ELECTION TIME

In this issue is a ballot for members to use to vote for members running for the offices of President, First Vice President and Second Vice President. The voting system may appear a little unusual but considering the lack of persons who are willing to run for office, it is the only way. There are four candidates and three offices. You are asked to vote for only ONE person, the person you would like to see become President. The person receiving the most votes will be President. The person receiving the second highest number of votes will be First Vice President and the person receiving the third highest number of votes will be Second Vice President.

There will be a separate election for Secretary and Treasurer in a couple of months.

The campaign statements follow. They are presented in alphabetical order by last name as are the names on the ballot.

JOHN R. CLARK (CA-OR-078)

Background:

Radio monitoring has been my hobby since 1950, starting with DXing and following the police signals as they shifted from just above the AM band to their present location. With each new receiver my listening interests have grown, especially since the acquisition of a programmable BC-101.

For the past 15 years I have been a Professor of Mathematics and Information systems and a part time computer consultant. I find monitoring a pleasant way to spend time while working on problems.

Reports of Meetings and Officers (continued)

Qualifications:

Although I have not held office in a radio club, in the past I have held office and worked for professional computer and mathematics organizations. I have served on the Board of Directors and acted as Treasurer for the International APL users group which is now known as STAPL. During this time I served as Chairman of the four day US conference APL-73.

Future RCMA plans:

It is my feeling that the RCMA should progress on its present well directed and successful path. I would propose only extensions to what we have already discussed.

1. A computerized data base of frequencies which would be available to all members at cost of reproduction.

2. Encourage the establishment of regional meetings under RCMA auspices so that members may join in face to face contact without coming to Southern California.

BILL ELL (CA-LA-185)

I am 27 years old and have been in the hobby of scanners and monitoring since 1975. My other interest is in amateur radio.

Although I have only been a member of RCMA for one year, I have been in charge of handling requests for back issues of the "Newsletter" during the past few months.

If I am elected, I would recommend to the Board that the "Newsletter" be expanded, and I am in favor of contining to offer back issues of the "Newsletter" to our members.

I solicit your vote for me as a canidate for one of the three offices.

Joe Freezon (CA-LA-031)

No campaign statement reached the editor by deadline so here are a few words on his behalf..... Joe has been a conscientious and effective behind-the-scenes worker for RCMA for some time (years). Joe maintains the RCMA mailing list with information submitted to him by the Membership Chairman and the Treasurer. It is an important job and he has served the club well.

NOEL ROBERTSON (CA-LA-083)

I have been a member of RCMA for over two years, and at the present time I am the Secretary of the Association.

My interest in scanners and monitoring goes back to 1956, when I built my first one, and at the present time I have 16 scanners in operation. My other major radio hobby is amateur, and I am presently working towards my Advance rating.

As the only current Board member running for office as either President, First Vice President or Second Vice President, I would like to solicit your vote so that the many projects that have been started by the present Board can be continued during 1980.

I will, if elected, strive for continued expansion of the "Newsletter", continue to offer back issues of the "Newsletter" and try to find ways that RCMA members in areas outside of Southern California can play a larger role in the business of operating the Association.

Your vote will be sincerely appreciated.

RCMA BALLOT

Instructions:

1. Send ballots to: RCMA, P.O. Box 4563, Anaheim, CA 92803.

2. Write "BALLOT" on the envelope and enclose nothing else with the ballot.

3. Ballots must be received by January 31, 1980 to be counted. Attend to it right now so you won't forget!

4. You must vote for only ONE person, the person you would like to see become President. See campaign statements on a previous page.

* * * * * * * * *

☐ JOHN R. CLARK (CA-OR-078)

☐ BILL ELL (CA-LA-185)

☐ JOE FREEZON (CA-LA-031)

☐ NOEL ROBERTSON (CA-LA-083)

* * * * * * * * *

Information Poll:

We are considering a name change for our publication. Which do you prefer?

☐ RCMA Newsletter (no change)

☐ The Monitor

☐ The RCMA Monitor

☐ Other _____

Cut on this line and remove from the Newsletter.

THE editor's column

Iden Rogers, P.O. Box 4693, Riverside, CA 92514

RCMA NEWSLETTER EDITORSHIP

I gave my notice three months ago stating that I wanted to step down as editor with the December issue and that I wanted someone else to take it over. So far, no luck. I have received ideas and suggestions from interested persons but no new editor prospects.

Two Orange County members have volunteered to take over the "paste-up" so I have begun training them. They will take it over in stages. Their job will be to take all the various incoming columns and put them in order, cut the pages to length, add page numbers and make all other preparations prior to turning it over to the printer. This will certainly help. Column editors will eventually be notified to send their columns to a new address. This is only part of the job but it is a start.

If anyone in the Orange County area would like to become involved in helping to produce our publication, please call me at (714) 588-1168 before 9 PM. Perhaps a team approach rather than a one-man approach will be best to keep the workload light for everyone involved.

I enjoy many of my editorial duties. I believe in the club and am rewarded by the kind and complimentary letters I receive but I have no spare time for other things. I still don't want to quit because the Newsletter could faulter some if there isn't someone to take the reins. If no one surfaces, I will eventually just have to throw up my hands and quit. If I get good help, I may continue as "Managing Editor" but I don't know that for sure.

TABLE OF CONTENTS

I have received requests for an index or table of contents in the Newsletter. I do realize that there is a need for it and many would find it useful. I will try to start a Table of Contents with the January issue, time permitting.

RCMA DIRECTORY OF SOCIABLE MEMBERS

This will be a directory of members who want to actively correspond by letter, telephone or cassette tape and/or want to meet other members in person. The directory will be sent only to those members who are listed in the directory. The directory will briefly list each member's listening interests and in what manner he wishes to communicate with other members.

In order to be listed in the directory you must fill out a new directory questionnaire. To obtain the questionnaire, send a self-addressed, stamped business size envelope with your request to: RCMA, P.O. Box 4693, Riverside, CA 92514. No envelope means no questionnaire means no directory for you.

If all goes well, the directory will be mailed out by the end of February.

Do not send for the questionnaire unless you are willing to reply to all reasonable and sincere letters sent to you by other members.

I would like to thank all of you who took the time to write to me to express your interest in this directory. I feel a little guilty asking you to write again. I had to first determine the extent of the project before starting it.

THE editor's column (continued)

FEDERAL AND MILITARY FREQUENCIES

Even though the RCMA has a fairly conservative and restrictive policy regarding the dissemination of sensitive frequencies, it seems that some of our members are concerned about some of the frequencies that have already been printed in the "Federal Gov't" and "Military" columns. The concern is that giving out some of these frequencies and offering topics,like 406-420 image programming, etc., could cause some of the federal agencies to become nervous and escalate the trend toward the use of scramblers which could spoil listening for many hobbyists. The citizenry at large and even many radio hobbyists don't realize that receiving certain sensitive radio transmissions is possible if one cares to pursue the subject with some dedication. Reading a publication like ours can put a person whose interests are other than the radio hobbies closer to these sensitive frequencies which is not desirable. The federal agencies may note this. They also probably understand that it is not our intention to educate the "bad guys".

I would like that all concerned members write to express their concerns on this subject. The worst case solution might be to further limit the "Federal Gov't" and "Military" columns. First we should assess the extent of concern among our membership. Also, those with opposing viewpoints are welcome to write, that is, those who feel our policy is too restrictive.

Representatives of the federal agencies are also encouraged to write and certainly we must have agents in our club. I would be surprised if we did not.

Since I am continually busy and do not want to cause more work for myself, I have enlisted the help of another member. When you write, please write to: Tony Loving, 231 Kinderkamack Rd., Westwood, NJ 07675. Tony's findings will be presented to the RCMA Board and to Bob Grove, editor of the "Federal Gov't" and "Military" columns.

SATELLITES COLUMN

Bill and John, the editors of the "Satellites" column, have received little member response to their very informative and nicely prepared column. They feel that their services could possibly be put to better use by editing a column on a different subject. If you want to see the "Satellites" column continue in the Newsletter, you must immediately write to the editors to express your support. If you monitor satellites, please immediately send in information about what you are hearing and the equipment you use.

If sufficient member support is not received, this column will be dropped.

RCMA MEETINGS IN LOS ANGELES

When I attended the California Highway Patrol tour/meeting, it was mentioned to me that it sure would be nice to have RCMA meetings in Los Angeles in addition to those in Orange County since it is too much of a drive for many Los Angeles area members to come to Orange County meetings. The Board of Directors does not have the time nor energy to organize and conduct meetings in two locations. Los Angeles area members can have meetings but they will have to be organized and conducted by Los Angeles area members. Persons who feel that they would like to help organize meetings in the Los Angeles area can make a statement in the "CONTACT" column. This is the way to get the ball rolling.

Members in other parts of the country can also use the "CONTACT" column as a starting point to organize one-time, quarterly or monthly meetings.

Meeting notices and meeting recaps should be sent to the Newsletter for publication. Keep an eye on Newsletter deadlines when sending in meeting notices.

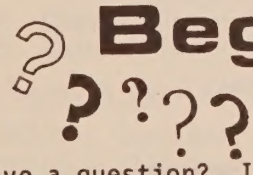
THE editor's column (continued)

COMMENTS FROM GEORGE DuBOIS (OR-001)

Regarding Mike's comments in October's editorial section, I have a few more comments. First, he says one member is profiting from our newsletter. He better look around. It seems a number of our fellow clubmembers are out to make a buck from the members and our newsletter. The latest unsavory tactic is soliciting 'sensitive' Federal information by mail from random members. Trading info on different state police systems, say, is one thing, but someone in Oklahoma who wants the Denver DEA channels obviously isn't going to listen to them himself. Analysis of Government allocations is interesting, but it's already been done. The allocation table in later Police Calls is 95% accurate, a little experience giving you the ability to 'read' the USA codes. The information is no doubt going to end up in someone's "Top Secret" directory, for sale at a price. My own suggestion is to ignore such requests unless you know the guy or have traded with him before. Regarding the theory of 'buying back' your own information, I agree with both Mike and Iden. You've shared your information with others. That's more than a lot of members do. But then, they may need it. My theory is that I don't need the directories. I know the changes and additions (most of the time) before any book comes out. Let someone else pay their hard-earned money to get the information. Who cares? Right?

"THE VISITING FIREMAN"

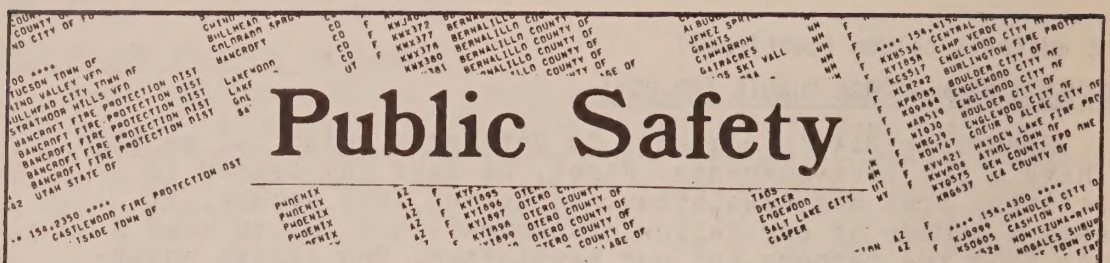
From MICHAEL (IL-014): Soon the subscribers of the fire buff directory, The Visiting Fireman, will be receiving their listing forms to fill out for the 1980 edition. I urge all members who subscribe to the VF to list their membership in RCMA when filling out the forms. The Visiting Fireman publisher Dan Martin, has assured me that RCMA will be included in the new edition.



Have a question? If you are a new scanner listener and don't understand something about monitoring that most everyone else seems to understand, send in your question. When possible, your question and the answer will be printed. No answers will be sent by return mail. Your name will not be printed. Write to: David E. Crowley, 7234 Balson Ave., University City, MO 63130.

Surprise! Another new column!

David will begin his new column as soon as he starts to receive input from members. Here is your chance to find out the answers to things that have puzzled you about monitoring. Intermediate and advanced level questions must continue to be sent to other specific columns, such as "Technical Topics", "Aircraft", "Railroads", "FCC Topics", etc. If your question is at the beginning or elementary level and relates to monitoring in any way, this is the place!



Public Safety

This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for police, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.

PUBLIC SAFETY - EAST

Send Public Safety and Special Emergency frequencies, radio system details and questions for Connecticut, Delaware, District of Columbia, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia and West Virginia to: Richard Barnett, P.O. Box 428, Newton Highlands, MA 02161.

As this could possibly be the last time I write my article with Iden Rogers as editor, I would just like to take a moment to express my appreciation to him for all the help and encouragement he has given me. Not only does Mr. Rogers continually update his editors on important club matters, but also he has taken the time to call me across the country when something has to be immediately cleared up. Our editor has obviously done an awful lot to upgrade the quality of this newsletter and I am very sorry that he must leave his post. I'm sure all RCMA members are cognizant of what Iden has done and we should all be very thankful to him.

From DONALD (MD-007):

Baltimore City Police:

453.050	Southwestern District 800 series cars
453.200	Citywide
453.275	Eastern District 300 series cars
453.300	Special Events (Citywide 2)
453.350	CID
453.425	Central District 100 series cars
453.525	Northeastern District 400 series cars
453.625	Western District 700 series cars
453.650	Tactical
453.675	Southern District 900 series cars
453.775	Southeastern District 200 series cars
453.825	Northern District 500 series cars
453.925	Northwestern District 600 series cars
460.050	BALTIMORE AREA INTERSYSTEM

CALL SIGN (for all)

KGA 410

Baltimore City Fire:

154.310	Fire Dispatch
154.145	Ambulance
154.445	Fire Ground
154.370	Fire Ground
154.070	Fire Repeater input
154.280	MUTUAL AIDE

CALL SIGN (for all)

KGC220

Public Safety - East (continued)

From CHUCK (MD-004): -continued from the November issue-

MARYLAND STATE AGENCIES

-Medical & Fire Emergency-

154.280 Fire Department intercommunications, "MUTUAL AID", (Anne Arundel, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery, Prince-Georges Counties)
452.950 base, 457.950 mobile "CALL 1" CISCOM Paramedics
462.975 base, 467.975 mobile "Call 2"
463.000/ 468.000 MED-1: Prince George's General Hospital, Talbot & Washington
463.025/ 468.025 MED-2: Baltimore City, Montgomery County (Holy Cross Hosp.)
463.050/ 468.050 MED-3: Calvert & Garrett Counties
463.075/ 468.075 MED-4: Anne Arundel, Baltimore,Carroll, Harford, Howard, St. Mary's & Somerset Counties
463.100/ 468.100 MED-5: Dorchester & Montgomery County (General Hosp.)
463.125/ 468.125 MED 6: Frederick Kent and Queen Anne Counties
463.150/ 468.150 MED 7: Alleghany County and Prince George's Counties
463.175/ 468.175 MED 8: Charles County

-Maryland State Highway Administration (Road Maintenance & Snow Removal)-

Ch. 1 47.320 Statewide, Alleghany, Garrett and Washington Counties
Ch. 2 47.260 ZONE 2 Anne Arundel, Calvert, Charles and St. Mary's
ZONE 7 Carroll, Frederick, and Howard Counties
CH. 3 47.400 ZONE 1 Dorchester, Somerset, Wicomico and Worcester
ZONE 3 Montgomery and Prince George's Counties
CH. 4 47.140 ZONE ? Caroline, Cecil, Kent, Queen Anne and Talbot

-Department of Natural Resources-

39.220 "Tidewater" police
151.205 Ch.1 repeater - Fish & Game Wardens (159.240 Ch. 2 mobiles)
31.460 Bureau of Mines, Environmental Service and Water Resources

-Forests and Parks-

151.460 Channel One - Fire Operations
151.325 Channel Two - Park Rangers and services

above channels for: EAST REGION - Caroline, Somerset,Wicomico, Worcester

EAST REGION - Caroline, Somerset, Wicomico and Worcester Counties
WEST REGION - Allegheny, Frederick, Garrett, and Washington Counties
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151.355 Channel Four - Fire Operations
151.415 Channel Five - Park Operations and services

NORTH REGION - Baltimore, Cecil and Harford Counties

151.250 Channel Six - Fire Operations
151.310 Channel Seven - Park Operations and services

SOUTHERN REGION - Anne Arundel, Calvert, Chalres, Howard, Prince George and St. Mary's Counties

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---Special Notes:---

Some of you in my area have written and asked for a personal reply.For the next month though I will be extremely busy taking college board exams and

applying to different universities. After early January I'll be through with all this work and from then on I shall try to promptly answer my mail.

I would like to thank the former Southeastern region editor for the information he sent, it has been very helpful. To Mr. Eddie Muro of New York: Please write and type up a sample New York Metro article for me and I'll get back to you ASAP. To John Ardent of Illinois: Thank you for the State Police data you sent, as soon as I have a chance I will reply with some more info. Chuck Gysi sent the following from Rich (PA-027) and Jerry (NJ-014):

Bloomfield New Jersey Police have switched frequencies to 477.2625 WXM565.

Allegheny Port Authority - Buses: 453.05 South, 453.20 West, 453.30 East, 453.50 North, 453.60 East, 453.75 Trolleys

PUBLIC SAFETY - CENTRAL

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alabama, Arkansas, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, Tennessee and Texas to: Mike Redman, P.O. Box 1177, St. Charles, MO 63301.

Send material and questions for Illinois, Indiana and Wisconsin to: John Arendt, 327 Boulder Hill Pass, Oswego, IL 60543.

Greetings. First, a Merry Christmas and Happy New Year to you all! I appreciate your comments, contributions, and support and hope all of you will continue to write in the coming year. The Newsletter and this column have come a long way in the past 12 months, and much of the credit is due to you, our readers. Thanks for your help, and let's keep it up!

With winter coming on quickly now, many of us will turn our monitoring attentions to the snow removal crews and area highway departments. I hope many of you will send the system frequencies and details for the highway departments in your area. Also, I occasionally get a request for information from another state for an area I'm not familiar with. So, I would like to encourage all of you to send me a map of your state (Service station variety is fine) to help me figure out some of the areas I am dealing with, and improve the quality of my responses. It should make me more efficient.

From LARRY (MI-001): Larry advises again of his large collection of frequency information (including some items not normally covered in my column) which is available to members. To contact Larry, call 313-398-9797; if he's not home when you call, be sure to leave your name, number, and best time to call, and your call will be returned. Or, contact me through my mailing address, I'll get Larry's input, and put it in the column for all to enjoy.

From DENNIS (IL-026): Dennis has provided some additional Emergency Medical System information that arrived too late for my November column. It concerns the MERCI system in Illinois. A portion of the MERCI system is CMED (Central Medical Emergency Dispatch), the ambulance dispatch system developing in Illinois. The common dispatch channel of 155.220 Mhz. is designated as the CMED channel. For those into tone squelch decoding, a frequency of 225.7 Hz. is used for ambulance/State Patrol contact (155.340/155.460). The

State Patrol will be unable to hear the ambulance calling unless that tone is employed. There are nine MERCI Net Communications Control Centers (NCCC) in Illinois. Each NCCC forms the primary communications link for both minor and major disaster relief coordination, and provides intercom connection for each hospital in the net. Frequency used is the Illinois Hospital Association's frequency of 155.280 Mhz.

From BRIAN (WI-00?): Brian would like help with information on frequencies in the Darlington or Lafayette County Wisconsin area. Brian says that while the Lafayette County channel is active, another very busy channel can be heard in the backround. Any of you have any clues?

From ME (MO-002): A good friend of mine recently moved to the ElPaso Texas area. He asked me, and I'm asking you to help in locating frequencies for ElPaso, surrounding cities and counties, and that part of the state, in the Law Enforcement, Fire, and EMS catagories. Any help will be appreciated.

With this month's column I am proud to present my new co-editor, John Arendt! John will be writing for the states of Illinois, Indiana, and Wisconsin, so henceforth, please send your comments and contributions for these states direct to John. His address is 327 Boulder Hill Pass, Oswego, Il., 60543; or he may be reached at 312-554-3156. Here is John's opening column:

CHICAGO AREA SUPPLEMENT

Greetings from IL-012! It's a great honor (and great responsibility) to have been selected for this assignment. The information contained in this "supplement" will benefit all members, especially those living in IL/IN/WI or out-of-state members travelling thru these three states.

An introduction is in order. I am John Arendt and have had the pleasure of belonging to RCMA since May 1978. My monitoring experience goes back to 1975, though - when my first scanner was placed into service. I live in Oswego - a village located about 40 miles WSW of Chicago. I'm 36, am married and have a 4 year old son. ("IL-012A" and "IL-012B" also enjoy monitoring from time to time.) I'm employed at an industrial and toolroom supply house in Aurora - about 5 miles away from my home.

After getting my start in monitoring local law enforcement activities, I specialized in monitoring Illinois State Police for the last several years. I've recently had good success in monitoring federal government frequencies.

Fortunately, I live in a relatively "static-free" area (no nearby overhead power lines). My location allows for monitoring well into the Chicago area and also into "downstate IL." When conditions are right, IN and WI are also heard quite frequently. Monitoring equipment here consists of 2 Bearcat 101's plus a Bearcat 250 connected to appropriate external antennas. Addi-

tional equipment will be placed into service early next year. I've also had the pleasure of being a "Police Call" field monitor for about 3 years now - Gene Hughes and I have corresponded back and forth and we both like to chase a little "skip" now and then. The first successful RCMA members gathering in this area ("IL-1979") was held at this location back in June.

The IL/IN/WI area is one of the fastest growing membership areas and I welcome any and/or all contributions to make this "supplement" a success. Your frequency format is not important as it would be translated into RCMA format.

Now, on to the business at hand. Happy Monitoring!

INDIANA STATE PATROL

(Information supplied by DAVE IN-002 and an article from "The Silver Shield", the Indiana State Police Newsletter)

There are four basic operating systems that make up the ISP Communications Network: 1) Base/mobile, 2) Microwave, 3) (IDACS) Indiana Data and Communications System, 4) (ILEEN) Indiana Law Enforcement Emergency Network.

The base/mobile system utilizes 40 base stations and over 1400 mobile radios. Each district has two base stations which operate on 4 Low Band and 1 High Band frequency. Low Band is the primary base/mobile system, made up as follows:

1	42.26	cars to base
2	42.42	statewide dispatch/car to car
3	42.12	Lowell Post (limited use)
4	42.16	limited use

Future plans for channels 3 and 4 include:

3	42.12	car to car
4	42.16	special operations

Intersystem communications are accomplished on 155.370 Mhz.

The Indiana State Police microwave system includes 38 base station locations, and connects the district stations with telephone, teletype, and data communications. The microwave stations are operated in a series system called closed looping. It enables the microwave system to continue operation even if one site fails.

Ten aircraft are employed by the state patrol; these are also being fitted with the four channel low band mobiles.

Mobiles have the low band radio plus a high band radio. The high band units employ the vehicular repeaters on 155.445 Mhz. Here's how it works. Each officer is assigned a portable radio with 2 channels- 155.445 Mhz., and 155.475 Mhz. (ILEEN or Mutual Aid). When away from his vehicle, the officer can transmit on 155.445. This is picked up by the car's high band unit and retransmitted over the car's low band radio back to the 'post'. The same is true for post-to-car traffic. Anything received on the mobile low band radio is retransmitted to the high band portable. Thus, an officer away from his mobile can remain completely in touch with his base. There are some problems in this system, however, that prevent complete success.

Future plans include addition of 25 portable base stations which will include portable antenna and tower.

Many thanks to DAVE (IN-002) for the information used here.

Public Safety - Central (continued)

From BOB (KS-001):

SP	KS	State Prisons, Lansing,Hutchison,Topeka		B/M	155.310
SP	KS	State Capitol Security, Topeka	KLR418	R	453.700
FOR	KS	"State Parks"	KGC661	B/M	44.640
FOR	KS	Fish & Game Statewide	car-to-car	M	39.580
FOR	KS	Fish & Game Statewide		M	39.700
FOR	KS	Fish & Game dispatch on SO bases		B	39.580
		(Fish & Game units in the 1200 series)			
HWY	KS	Kansas Turnpike Authority		R	151.100
HWY	KS	Kansas Turnpike Authority		R	151.085
		(Above two channels cover Wellington to K.C.)			
HWY	KS	Lawrence, Topeka, Kansas City area		BM	47.060
HWY	KS	Northeast Kansas		BM	47.120
HWY	KS	Northeast Kansas		BM	47.180
		(above three channels are also statewide)			

From MIKE (IL-004): Here are some frequency-zone changes instituted by the Chicago PD to accomodate a new 24th District along the city's upper north side along the lake. Below are current zone assignments, monitored by Mike on his Regency Touch unit:

Frequency	Zone	District	Frequency	Zone	District
460.475	Z-1	16/17	460.200	Z-8	4/6
460.050	Z-2	19/23	460.025	Z-9	5/22
460.225	Z-3	13/14	460.100	Z-10	10/11
460.150	Z-4	1/18	460.375	Z-11	20-24
460.500	Z-5	2/21	460.425	Z-12	15
460.400	Z-6	7/8	460.450	Z-13	9/12
460.075	Z-7	3			

From DENNIS (IL-026): Springfield, Illinois:

PD	Ch.1	Dispatch	KZZ767	B/MR	460.400
PD	Ch.2	Dispatch	KZZ767	B/MR	460.425
PD	Ch.3	Car to Car		M	460.400
PD	Ch.4	Car to Car		M	460.425
PD	Ch.6	Tactical		B/M	154.725
PD	Ch.9	Traffic Engineers/Animal Control		B/M	156.330
ST		City of Springfield	KET289	B/M	154.115
SG		Paging	KTZ417	B	155.925

(155.925 handles statewide paging for state of Illinois)
(Channels 3 and 4 are simplex on 460 Mhz. channels, whereas channels 1 and 2 access repeaters)

That's it for this month; thanks for reading, Merry Christmas, and we'll see you next month. Don't forget to write!

PUBLIC SAFETY - WEST

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alaska, Arizona, California (except 7 Southern California counties), Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming to: Lyle Galdiera and Bob Gehri, 3205 SW Corbett, Portland, OR 97201.

Send material and questions for the Southern California counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura to: Eric Christensen, 2360 Brentford Rd., San Marino, CA 91108.

Nothing was received from Lyle and Bob by the deadline. The following was prepared by Eric, the Public Safety - West, Southern California editor.

CALIFORNIA HIGHWAY PATROL

Statewide Radio Frequency System

Current C.H.P. radio channel usage: The following is a listing of all C.H.P. base and mobile channels throughout California, as up to date as possible. PLEASE ADVISE CORRECTIONS for publication in a future issue of the R.C.M.A. Newsletter. NOTE: The following list has been confirmed as of 19 October 79 by the Los Angeles Communications Center, California Highway Patrol.
Late Change: "TRUCKEE" Dispatch Center changed from the "RED" channel to the "GREY" channel on 18 October 79 (per info from CHP-LACC).

FREQUENCY	CHANNEL	FREQUENCY	CHANNEL
42.40B/42.16M	Purple	42.50B/42.82M	Brown
42.12B/42.20M	Gold	42.88B/42.66M	Orange
42.08B/42.28M	Silver	42.46B/42.70M	Black
42.44B/42.76M	Pink	42.56B/42.72M	White
42.44B/42.28M	Red	42.54B/42.24M	Green
42.34B/42.18M	Blue	*42.42B/42.84M	Tan
*42.52B/42.30M	Yellow	*42.48B/42.68M	Grey
*42.60B/ ? M	Copper		

NOTE: All stations, dispatch centers and patrol vehicles are equipped to operate on the "Blue" channel in addition to their own area dispatch channel. The "Blue" channel is a statewide secondary channel. Some areas may still dispatch on the "Blue", but these will change as soon as a new frequency can be assigned.
Channels marked "*" are new channels scheduled for use.
Future plans call for the San Bernardino, Santa Ana & Los Angeles Communications Centers to split some of their frequencies. San Bernardino is scheduled to split early next year; San Bernardino units on one frequency while the remaining units go to the new one. Santa Ana is not scheduled to split until sometime in 1981, with Santa Ana units on one channel and all others on the other channel. Chances are, when the Gold channel splits, the remaining station (East L.A. or Santa Fe Springs) will most likely get the new Yellow channel. Odds are that the split between West Valley and Glendale will involve the new Tan channel. This is all speculation, and only time will give us the actual results!

Area Dispatch Centers	Units/Prefixes	Frequency
Zone I (Northern Div):		
Alturas*	60-Alturas	Blue
HUMBOLDT	16-Humboldt	Green
	95-Crescent City	"
	105-Garberville	"
REDDING	37-Redding	Red
	36-Red Bluff	"
	90-Trinity River	"
	39-Williams	"
	93-Willows	"
Quincy*	20-Quincy	Blue
Susanville*	38-Susanville	"
YREKA	41-Yreka	"
	52-Mt. Shasta	"
UKIAH	18-Ukiah	White
	7-Lakeport	"

Public Safety - West (continued)

ZONE II (Valley Div):

CHICO	104-Chico	Brown
	35-Oroville	"
	43-Yuba/Sutter	"
SACRAMENTO COMM CENTER	46-North Sacto	Gold
	112-South Sacto	"
	45-Auburn	Green
	44-Placerville	"
	47-Woodland	"
	42-Grass Valley	"
TRUCKEE	80-Truckee	Grey
	70-Gold Run	"
	13-Lake Valley	"
STOCKTON	62-Stockton	White
	94-Amador	"
	49-San Andreas	"
	61-Sonora*	"
	48-Modesto*	Blue
	103-Tracy	"

ZONE III (Golden Gate Div):

OAKLAND	96-Oakland	Gold
	25-Hayward	"
	19-Contra Costa	Purple
	22-Solano	"
	21-Napa	"
SAN FRANCISCO	32-San Francisco	Pink
	91-Redwood City	Silver
	34-Marin/G.G. Bridge	"
SANTA ROSA	17-Santa Rosa	Orange
SAN JOSE	24-San Jose	Brown

ZONE IV (Central Div):

MERCED	64-Merced	Orange
	30-Los Banos	"
	66-Madera	"
	63-Mariposa	"
FRESNO	65-Fresno	Silver
	68-Hanford	Pink
	40-Porterville	"
	67-Visalia	"
	88-Coalinga	"
BAKERSFIELD	69-Bakersfield	Brown

ZONE V (Southern Div):

L.A. COMMUNICATIONS CENTER	15-Central L.A.	Black
	79-West L.A.	Pink
	109-Malibu	"
	82-East L.A.	Gold
	83-Santa Fe Springs	"
	98-Glendale	Brown
	56-West Valley	"
	81-Baldwin Park	Orange
	84-Ontario*	"
	77-South L.A.	White
	78-Newhall	Silver
	89-Antelope Valley *	"
	102-Tejon	"

Public Safety - West (continued)

ZONE VI (Border Div):

SANTA ANA	86-Santa Ana	Purple
	55-Westminster	"
	113-San Juan Capis.	"
INDIO	76-Indio	Red
	6-Blythe	"
EL CENTRO	85-El Centro	Blue
SAN DIEGO	87-San Diego	Orange
	92-Oceanside	Gold
	108-El Cajon	"

ZONE VII (Coastal Div):

MONTEREY (Salinas)	26-Santa Cruz	Green
	23-Hollister/Gilroy	"
	27-Monterey	"
	8-King City	"
SAN LUIS OBISPO	9-Paso Robles	White
	14-Santa Maria	"
	28-San Luis Obispo	"
	3-Buelton	"
VENTURA	31-Ventura	Purple
	29-Santa Barbara	Green

ZONE VIII (Inland Div):

SAN BERNARDINO	75-San Bernardino	Green
	74-Riverside	"
	97-Banning	"
	101-Arrowhead	"
BARSTOW	12-Victorville	White
	59-Mojave	"
	106-Twentynine Palms	"
	73-Barstow/Needles*	"
Bishop*	72-Bishop	Blue
Bridgeport*	71-Bridgeport	"

NOTES:

*Alturas station manned only weekdays. Modoc County S.O. dispatches nights, weekends and holidays.
*Quincy station manned only weekdays. Plumas County S.O. dispatches nights, weekends and holidays.
*Susanville station manned only weekdays. Lassen County Sheriff dispatches nights, weekends and holidays.
*Sonora and Modesto units administratively in Central Division, but under Stockton Dispatch Center control.
*Antelope Valley units administratively in Inland Division, but under L.A. Communications Center control. Also, Antelope Valley Station is the old Lancaster station. Newhall Dispatch Center has been moved to the L.A. Communications Center; therefore the Newhall, Antelope Valley and Tejon units are now dispatched out of L.A.C.C.
*Ontario units administratively in Inland Division, but under L.A. Communications Center dispatch control.
*Blythe units can also be dispatched by Riverside County Sheriff on the sheriff's radio system.
*Needles units can also be dispatched on "White" CH-2 (42.56 MHz.) by Needles Police Department.
*Bishop station manned only weekdays. Inyo County S.O. at Independence station dispatches nights, weekends and holidays with Bishop Police

Department controlling Bishop local base station only.
*Bridgeport station manned only weekdays. Mono County S.O. dispatches nights, weekends and holidays.

For those who may have been wondering, the C.H.P. radio code "11-78" means "Paramedics dispatched". (Not found in Police Call.) ERIC (CA-LA-045)

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NEW HELICOPTER FREQUENCY: 123.025 MHz AM has recently been put into use by police helicopters & some others in the greater Los Angeles area. This is to supplement 122.75 MHz.

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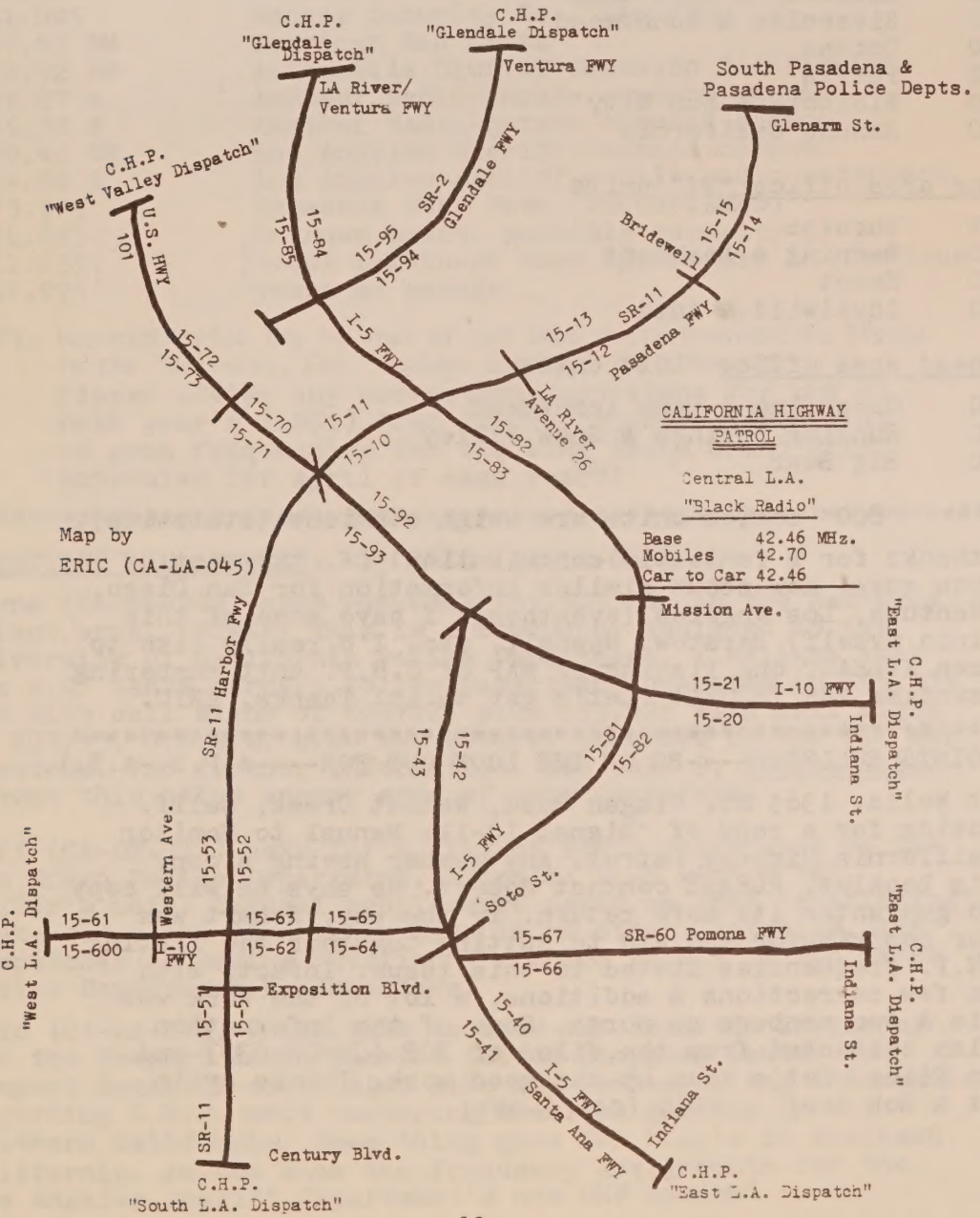
For Santa Ana area C.H.P. beat areas, see R.C.M.A. Newsletter, September 1979 issue, page 17. Freq: 42.40B/42.16M. Listen to C.H.P. helicopters on the C.H.P. Blue Channel, Freq: 42.34B/42.18M. ERIC (CA-LA-045)



From JIM HAYES (CA-SB-005)

San Bernardino C.H.P. Dispatch Center-Unit Numbering System

Freq. "GREEN" 42.54 MHz. Base & Car to Car
42.24 MHz. Car to Dispatcher

San Bernardino office "75" units

75-100	San Bernardino & Cajon Pass
75-200	Highland
75-300	Redlands & Colton (to Riverside Co. line)
75-400	Rialto & Fontana
75-500	I-15 FWY Devore Freeway

Riverside area office "74" units

74-100	Rubidoux & Mira Loma
74-200	Riverside & Sunnymead
74-300	Corona
74-400	Perris
74-500	Elsinore & Sun City
74-600	Rancho California

Banning area office "97" units

97-100	Yucaipa
97-200	Banning & Beaumont
97-300	Hemet
97-400	Idyllwild & Anza

Arrowhead area office "101" units

101-10	Crestline & Lake Arrowhead
101-20	Running Springs & Snow Valley
101-30	Big Bear

NOTE: "800" series units are weigh stations (statewide).

Jim, thanks for a fantastic contribution! OK, the rest of you guys; how about similar information for San Diego, Ventura, Los Angeles (eventhough I have some of this info myself) Barstow, Newhall, etc. I'd really like to see ATLEAST one listing or MAP of C.H.P. unit numbering systems PER ISSUE!! Let's get to it! Thanks, ERIC.

****

ALL POINTS BULLETIN----BE ON THE LOOK OUT FOR----A.P.B.-A.T.L.

Robert Wells, 1365 Mt. Pisgah Road, Walnut Creek, Calif. is looking for a copy of "Signal 10-11: Manual to Monitor the California Highway Patrol. Any member having a copy of this booklet, PLEASE contact Robert. He says he will copy it and guarantee its safe return. By the way, Robert was a major contributor and aid to putting together the listing of C.H.P. frequencies listed in this issue. Infact, with only a few corrections & additions, a lot of the work was all his & two members up north. Some of the information was also collected from the files of BOB (CA-OR-033) and my own files. Let's keep up the good work. Thanks again Robert & Bob too! ERIC (CA-LA-045)

Monitor the Pasadena Rose Parade From ERIC (CA-LA-045)

Refer to my original article in the July, 1979 issue of the RCMA Newsletter for main frequencies. Also try:

Frequency	User/Purpose
154.515	Pasadena Rose Parade command channel
154.92	CLEMARS (heavy use at parade)
155.955	Pasadena local government (old PPD ch 2)
158.82	Pasadena local government
458.425	Pasadena local government
156.03	Old police freq 1; unknown if used.
45.42	Old police freq; unknown if used.
46.10 BM	Old fire freq 1; see Sept. RCMA Newsletter
153.89 BM	New fire freq 1; see Nov. RCMA Newsletter
46.00	"MEDEVAC" Ambulance Co., Pasadena
151.805	Ranger Security Co., Pasadena
47.42 BM	American Red Cross
150.92 BM	Automobile Club of Southern California
147.27 R	Amateur Radio-parade command channel
145.30 R	Amateur Radio-parade command channel
39.40 BM	Los Angeles Sheriff-Command channel
154.80 S	Los Angeles Sheriff-mobile radio extenders
173.375	Pasadena Star News (UNCONFIRMED)
151.625)	(Unknown users; possibly security or tow
151.655)	(truck services; used apparently in previous
151.775)	(years at parade.

NOTE: You might also try several of the news media frequencies listed in the "Business, Etc." column and LASO UHF channels. Please advise any corrections/additions for use at next year's (1981) Rose Parade. Anyone have a list of good frequencies for the Long Beach Grand Prix scheduled for April of each year?!

****

QUESTIONS AND ANSWERS: by ERIC (CA-LA-045)

Wayne (CA-SL-002) asks who uses 155.505 MHz in the San Luis Obispo area. ANSWER: This is a frequency assigned to the University of California Police Department. I believe that the U.C. Santa Barbara Police Department operates on 155.505 MHz with call signs of KO0772; plus 155.475 with call signs of KUB793. U.C.S.B. also has several licenses in the 161 MHz spectrum. For further information, see Vol. 9, Police Call. I hope this helps answer some of your questions.

Jeff (CA-OR-012) asks for a list of radio codes used by the San Diego Police Department. Example: 10-8 with a "K". Editor's note: Several people have asked me what "stationing" means since the dispatcher says it so often. Actually, the dispatcher is saying "Station A", which refers to San Diego Police Department Headquarters.

Eric (CA-LA-045) would like to know the Security frequency for the Newport Beach/Fashion Island shopping center in Newport Beach. I would also like any member having information regarding C.H.P. unit numbering/beat assignments in all Southern California. Same thing goes for P.D.'s in Southern California. Anyone know the frequency assignments for the Los Angeles Sheriff Department's new UHF system?

Public Safety - West (continued)

From ERIC (CA-LA-045) via J.P. COOPER (new RCMA member)

POLICE DEPARTMENT-City of Irvine, California (Station 39)

Radio System:	Dispatch	460.175	R	"Green"
	*Car to Car	460.150	S	"White"
	*Mutual Aid	460.200	R	"Orange South"

*Orange County operated frequencies

Unit Numbering System:

All police units for the Irvine Police Department consist of five digits. The firs two are always "39", which indicate "Irvine PD" within Orange County, California radio system. The third digit indicates the division that the unit is assigned to, ie: Patrol Watch 1, 2, 3, 4; or Detectives "6"; or Traffic "5".

Watch 1 Patrol: "100" series units: 2300 hrs. to 0700 hrs.
Watch 2 Patrol: "200" series units: 0700 hrs. to 1500 hrs.
Watch 3 Patrol: "300" series units: 1500 hrs. to 2300 hrs.
Watch 4 Patrol: "400" series units: 1900 hrs. to 0300 hrs.

The last two digits indicate the respective area and beat.

Area 1: 11, 12, 13, 14, 15. Reportedly South of I-405 FWY.
Area 2: 21, 22, 23, 24, 25. Reportedly between I-405 & I-5 FWY.
Area 3: 31, 32, 33, 34, 35. Reportedly North of I-5 FWY.
Units 11, 21, & 31 are the primary units in their beats.
Patrol Sergeants: 10, 20, 30 Respective to beat areas.

Investigations Units:

Investigators 601 thru 609 and 611 thru 620
Sergeant 610
Public Safety Aides 621 thru 630. Animal Control 640-649
Technical Services 631 thru 639

Traffic Division:

510 Sergeant 520 Senior Traffic Investigator
511 thru 519 Traffic Enforcement 700's Special Events
521 thru 524 Civilian Traffic Investigator 800's Radio #
530 thru 545 Police Explorers 900's Handheld Radios
000's Administrative

Lieutenants: 100, 200, 300, 400, 500. Respective to their division.

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The city of Irvine contracts to the County of Orange for fire services.

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NEW MEMBERS

AK-002 Bill Westlake, P.O. Box 2371, Sitka, AK 99835
AZ-001 Helen B. Miller, 433 W. Gary Dr., Chandler, AZ 85224
CA-AL- D. N. Crowe, P.O. Box 4326 Berkeley, CA 94704
CA-LA-224 Jim Holzinger, 3587 Gundry Ave., Long Beach, CA 90807
CA-LA-225 Marvin Freedman, 967 Roscomare Rd., Los Angeles, CA 90024
CA-LA-226 Glenn L. Wilkinson, 14033 Garber St., Arleta, CA 91331
CA-LA- Joseph A. Marques, 1449½ Bellevue Ave., Los Angeles, CA 90026
CA-LA- Edwin O. Stevens, 300 N. Westridge Ave., Covina, CA 91724
CA-LA- Robert Riskin, 21849 Canon Dr., Topanga, CA 90290
CA-ME-007 Bruce Hutter, 123 Canal St. #305, San Rafael, CA 94901
CA-OR-133 Lee A. Chenoweth, Jr., 410 Carlotta, Newport Beach, CA 92660
CA-OR- Dennis Bassett, P.O. Box 3191, Orange, CA 92665
CA-SC-014 Robby Robinson, 1559 Dennis Ave., Milpitas, CA 95035
CA-SD-022 Ray Chafee, 10765 Greenford Dr., San Diego, CA 92126
CA-SD-023 Ronald L. Flint, 12606 Lakeshore Dr. #29, Lakeside, CA 92040
CA-SN-001 Bob L. Phillips, 544 South Ave., Santa Rosa, CA 95401
CA-VE-010 William A. Farmer, P.O. Box 1838, Thousand Oaks, CA 91360

(New Member list continued on page 28)

Business, Etc.

Chuck Gysi, Editor

This column is for reporting frequency and radio system information for the following varied services: business, forest products, petroleum industry, special industrial, manufacturers, news media (behind-the-scenes radio, TV & newspaper), motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/ hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.), and all school & college related frequencies. Send information and questions pertaining to the radio services covered in this column to: Chuck Gysi, P.O. Box 216, Willow Grove, PA 19090.

The response to this column has been very good. I hope that all continue contributing to this column. There's something here for everyone in the many radio services that are covered. Sometimes some of the frequencies listed in this column are more exciting or interesting to listen to than the routine police and fire calls, etc. If you haven't discovered some of the frequencies and systems listed in this column, give it a try some evening. You might well be surprised at communications on these channels. This is also a nationwide column. It is intended for members across the country, not just one region or area. If you have any info on any of the following radio services, drop me a line to the above address. Don't copy information out of the Police Call or Scanner Mate directories, though, as many members have these directories already anyway and it would be a waste of valuable space to duplicate such information unnecessarily. If you require a reply to your letter, please enclose a SASE with your letter. Otherwise, I go broke and the Postal Service makes all their money off of me. The News Media/Film category seems to be the most popular category so far, so without further discussion, here we go.

News Media/Film

In answer to my question in the October newsletter of KMPC's traffic helicopter frequency in Los Angeles, I received the following replies:

From DAVE (CA-LA-218): KMPC operates on 450.75 MHz. They operate two aircraft most of the time. One is a Bell Jet Ranger, now called the "Spirit of 710." The second is a single-engine fixed-wing, called the "Big Orange." Dave hasn't heard the twin-engine plane up since the recent death of Herb Green, KMPC's head of aviation services. The Spirit of 710 normally flies over Los Angeles County, while Big Orange files over Orange County. Both aircraft operate out of Hollywood-Burbank Airport. KMPC also operates a fleet of mobile units that ID as "cruiser 1" or "cruiser 2," etc. These units are assigned to reporters, newscasters, pilots and DJs. Dave says that the most interesting times to monitor are 6:30-9 a.m. and 3:30-6 p.m., when the aircraft are up. He also reports that their old freq, 455.15 has been reassigned, possibly to KABC-TV.

From RALPH (CA-LA-???): KMPC transmits freeway reports and receives ground instructions on 450.75 MHz. Very rarely technical data is transmitted on 450.25 MHz regarding engineering info on relays.

CHUCK (MD-004) requested some information on news media freqs in Miami and Fort Lauderdale, FL areas. I received this

reply in response to the October newsletter question:

From KENNETH (FL-025): RADIO STATIONS

161.760	WIOD	B/M	Miami, FL
170.150	WGBS	B/M	Miami, FL
455.550	WINZ	R	Miami, FL
450,450	WFTL	R	Fort Lauderdale, FL

TV STATIONS

450.1125	WTVJ Ch. 4	R	Miami, FL
450.3875	WTVJ Ch. 4	R	Miami, FL
450.0875	WCKT Ch. 7	R	Miami, FL
450.1500	WCKT Ch. 7	R	Miami, FL
450.6125	WPLG Ch.10	R	Miami, FL

From RICH (PA-027): Pittsburgh, PA News Media Freqs

KDKA (CBS)	166.25	reporters, camera crews
WIIC (NBC)	170.15	reporters, camera crews
WTAE (ABC)	161.67	reporters, camera crews
	450.05	Action Cam, Skycam and live broadcasts
KQV (ABC)	161.64	traffic helicopter

In the November column, I requested info on the traffic copter heard on 161.7 giving road reports for north of New York City and into Connecticut. Received the following:

From RICK (NJ-001): The helicopter on 161.7 is the unit for WIIC in Bridgeport, CT. He reports that he's heard them giving fishing boat reports in the Sound during the summers on Saturday afternoons. He also adds that the copter on 450.65 is one that splits its time between WBRW in Somerville, NJ and WFAS in White Plains, NY. He says that two traffic copters in New York City are WCBS-AM on 450.0875 (input on 455.7) and WOR-AM on 450.25.

UNKNOWN DEPT.--Have heard call sign WYR 280 used on 161.7 and I am unable to identify who this is. It might be in the Philadelphia area. Anybody have any ideas? I also have heard ABC-TV in New York City operating rarely on 161.64 and ID as KZH 858. ABC network camera crews were on stake-out at JFK Airport in New York awaiting arrival of Fidel Castro from Cuba and were contacting their base on this freq. Does anybody know what ABC uses this freq for generally?

Both Rick (NJ-001) and myself have heard WCBS-TV Channel 2 News advertising they now have a helicopter to cover news in metro New York. Any ideas on the freq they'll be using? I can only guess that it might be 161.73, as that channel is used by CBS-TV local ops in NYC now.

When Pope John Paul II visited the East Coast recently, not only was I in my glory monitoring the high-security federal government channels, the news media freqs were also in wide use in Philadelphia. I recently just learned that the Associated Press used a couple of walkie-talkies to relay their stories back to the AP bureau in Philadelphia. AP normally doesn't use two-ways in Philadelphia, so it was interesting to learn that they dug up a couple of two-ways for the event. Anyone have any ideas on the freqs they used? Also heard low power operation on 450.15. This freq is not assigned to any station in Philly so it may have been network crews or crews from another city in town to cover the event. Maybe this was the AP freq. Any thoughs?

Business, Etc. (continued)

Does anyone know the frequency used by Shadow Traffic Network in Philadelphia? They are not using any of the broadcast relay frequencies and I suspect that they are using business band to relay traffic conditions back to their base. They have used a helicopter in the past to my knowledge also. They are based on the 21st floor of the City Line Holiday Inn. Any thoughts on any freqs they might be using? Do any of the Chicago area members know the freq used by Shadow Traffic in Chicago? That might be a clue to the Philly freq. Also would appreciate a list of Chicago area news media freqs for this column if one of you members there can forward such. Thanks.

From ERIC (CA-LA-045):

News Media Frequencies for Southern California

FREQUENCY	SYS	STATION USER	CHANNEL USAGE
450.050	R	KABC Radio Los Angeles	News
		KCST TV San Diego	News (Freq 1) (TV39)
450.1125	R	KSCI TV San Bernardino	Engineering & News (TV18)
		KPBS TV San Diego	News (TV15)
450.150	R	KABC TV Los Angeles	News (TV 7)
450.1875	R	KNBC TV Los Angeles	Audio (Cueing) (TV 4)
450.2125	R	KOGO Radio San Diego	News
450.250	R	KTLA TV Los Angeles	Engineering Freq 2 (TV 5)
450.2875	S	KNXT TV Los Angeles	News Freq 1 (TV 2)
450.3125	R	KABC TV Los Angeles	Engineering Freq 2 (TV 7)
450.350	R	KTLA TV Los Angeles	News (Freq 1) (TV 5)
		KFMB TV San Diego	News Freq 1 (TV 8)
450.3875	R	KNBC TV Los Angeles	Engineering (TV 4)
450.4125	-	KFMB TV San Diego	Engineering Freq 2 (TV 8)
450.450	-	KCST TV San Diego	Engineering Freq 2 (TV39)
450.4875	R	KOCE TV Orange County	Engineering & News (TV50)
450.5125	S	KNXT TV Los Angeles	Engineering Freq 2 (TV 2)
450.5875	R	KTTV TV Los Angeles	News (TV11)
450.700	S	KNX Radio Los Angeles	News
450.750	R	KMPC Radio Los Angeles	News & Traffic Info
450.800	S	KNXT TV Los Angeles	Audio (Cueing) (TV 2)
450.850	R	KFWB Radio Los Angeles	News
455.2875	S	KGTV TV San Diego	Engineering (TV10)
455.450	S	KHJ Radio & TV Los Angeles	News (TV 9)
455.650	-	KPRO Radio Riverside	Audio (On Air)
161.76	-	KNBC TV Los Angeles	News (TV 4)
161.73	-	KSDO Radio San Diego	News & Traffic Info
		KLAC & KMET Radio L.A.	News
161.70	-	KGOE Radio Thousand Oaks	News
		KGTV TV San Diego	News (TV10)
161.64 (?)	-	KCOP TV Los Angeles	News (TV13)
173.375	-	Long Beach Independent/Press Telegram Newspaper	
		Pasadena Star News Newspaper (?)	
462.000) 467.000	B M	Fullerton Daily Tribune Newspaper	

NEXT MONTH: News media freqs for Topeka and Kansas City.

GMRS

Some Townwatch groups have found that GMRS is the better alternative to using CB radios. In the Philadelphia area,

Torresdale Townwatch in the city uses 462.65 under call sign KAB 8964. They have a base on every evening and probably use walkies by those members patrolling the neighborhood. Another group, Delaware County Townwatch Council Inc. has several bases in the county: Alden (KAB 5136), Holmes (KAB 5135), and Media (KAB 5134). They are authorized for 100 mobiles under call KAB 5137 and operate on 462.65 also.

Business

The 800-MHz band is still growing. In fact, two-way radio dealers in the New York City area are advertising the availability of 800-MHz equipment in the Yellow Pages of telephone directories. There must be a demand for 800-MHz two-ways. If you come across any interesting 800-MHz freqs, please forward them to this column.

From RICH (PA-027): Pittsburgh area steel freqs

United States Steel

42.98 portables
153.05 Neville Islands paging
153.11 Duquense paging
153.14 Leetsdale paging
153.17 North Braddock paging
153.20 McKeesport paging
153.32 Braddock, Clairton, Rankin paging
156.35 Glassport voice
156.55 Clairton voice
158.28 Homestead voice

Jones & Laughlin Steel Co.

153.23 paging
156.35 voice
161.40 Monongahela Connecting RR--J&L Steel

(Editor's note: I asked Rich to submit the above list because Pittsburgh is one of the nation's major steel production cities. If there is a business that is predominate in your community--such as the auto industry in the Detroit area--send a list of the freqs they use.)

From RICH (PA-027): Allis Chalmers Co. 158.43 Pittsburgh

Motor Carrier

Philadelphia Yellow Cab just got rid of a computer-aided dispatch system they had for about a month and a half in a dispute with the computer company. The computer was able to tell dispatchers the location of every cab in the system, whether the cab had a passenger, the amount of the fare and the driver's destination. It also enabled dispatchers to send the nearest taxi to pick up passengers. But Yellow Cab said the system broke down too often and had the system removed. Penn Radio Cab in the Germantown-Chestnut Hill section of Philadelphia has a similar system in use now. Penn Cab operates on 152.45 with cabs on 157.71. Yellow Cab of Philly operates dispatch on 452.10 (KSZ 930), 452.15 (KTS 694), 452.25 (KEG 862), and 452.30 (KEG 858). Cabs all operate 5 MHz higher than base freq.

Business, Etc. (continued)

From JOHN (PA-019): Notes on Southeastern Pennsylvania Transportation Authority (SEPTA) radio system freqs listed in October newsletter:

30.82 KYS 975 Supervisors for West and Northeast Phila.
30.98 KGB 812 Red Arrow Division
31.14 KGA 349 Rest of city and all service trucks.

A new experimental trackless trolley No. 800 in running on northeast routes 59, 75 and 66 out of the Bridge Street terminal and is operating on 31.14.

As far as the 502-MHz T-band channels that have been allocated to SEPTA for installation in buses, John reports that there is a lot of confusion and may tie up installation of the two-way radio bus system. He says that there are more than 25 people in SEPTA administration that have input as to the planning of the radio system. They are constantly arguing over how to implement the system John says. Funds are available, and the project could be installed in all but three months, but the project is tied up by confusion at SEPTA.

Train carrier phones once used in the subway are now being installed in trolley cars experimentally. The wire serves as the carrier. Subways now have compact carrier train phones.

From MIKE (CA-RI-011):
Red Cab Co. Riverside, CA KMB 400 152.45 base/157.71 cabs

Mobile Phone/RCC

C'mon, folks! Send in those mobile phone and RCC freqs. Did you know more than just normal folks and businessmen use mobile phones? Philadelphia homicide detectives can be heard occasionally on UHF mobile phone freqs making phone calls. Let us know if you've heard certain uses of mobile phone that are interesting.

From JOHN (PA-019):
Radio Broadcasting Co. of Phila. tone paging 158.70

Utility

From IDEN (CA-RI-001): Received the following from an anonymous member. Apparently some electric hot water heaters in Los Angeles County served by Edison have radio receivers on them. It seems during periods of heavy power demands, Edison can turn off these hot water heaters to help reduce the electrical load. The heaters are no doubt turned on and off by tones on 154.46375. Also heard that 149.4 is used for the same purpose at the Kiai Kai Hale Coast Guard base housing in Honolulu.

From CHUCK (PA-005): Found that Philadelphia Electric Co. also is licensed on 154.46375 as WJX 30 and WJS 87 for 6F2 operation. Plugging the freq into the scanner, I can hear tones several times during the day and evening. There seems to be a group of three different tones that are used. I can't say whether these tones are actually controlling hot water heaters or not. FCC rules state that this freq is used

Business, Etc. (continued)

for "power utility multiple address load management applications" and "for the remote control of objects and devices." Anybody know about such systems and how widespread their usage is in the nation?

From MIKE (CA-RI-011): Needs help in IDing the following:

48.12 KBC 434 in Tustin, Santa Ana and Garden Grove area
48.18 KME 488 base called "water"
48.42 power company responding to various addresses in LA area
153.53 Base IDed as "Pasadena"
153.575 KUE 337 (possibly a gas co.?)
153.62 possibly an electric co.?

Mike is also interested in what the Bell Telephone installation and repair freq is for the Riverside-Corona area and the General Telephone freq for the San Bernardino-Fontana area.

From DAVE (CA-OR-102):

47.94 Anaheim Dept. of Water and Power

Security

From JOHN (NJ-002): The correct frequency for the Boardwalk Regency Hotel Casino in Atlantic City for security is 461.95. Also 461.925 is apparently used by the Regency for shuttle buses and paging.

School

Here's another new addition to the column. This part of the column will discuss frequencies and radio systems used by colleges and universities, both public and private, school districts and private schools. Send any school-related radio information to this column.

NEW MEMBERS (continued from page 22)

CT-016	Dennis Murphy, 50 Brinckerhoff Ave., Stamford, CT 06905
CT-017	Ronald Snee, 143 Livingston Pl., Bridgeport, CT 06610
CT-018	Spencer O. Friedman, 32 Goodhill Road Ext., Weston, CT 06883
CT-019	Russell A. Kimes, 372 Main St., New Canaan, CT 06840
CT-	Dan Murphy, 706 Farmington Ave., Apt. B2, West Hartford, CT 06119
FL-027	Arthur L. Crichton, P.O. Box 8471, Naples, FL 33941
FL-	Frank J. Daily, 420-29th St. E., Lot 18, Palmetto, FL 33561
FL-	Bruce R. Purdy, Rt. 1, Box 30C-13, Gainesville, FL 32601
FL-	Wade Lanzer, 1463 S. Duncan Ave., Clearwater, FL 33516
FL-	David E. Steinel, 1116 Nowell St., Orlando, FL 32808
IL-059	J. Vinci, P.O. Box 101, Bellwood, IL 60104
IL-060	James L. Cavanagh, Jr., 18 E. Heron Dr., Palatine, IL 60067
IL-061	James Oberg, 9832 S. Warren, Oak Lawn, IL 60453
IL-062	James E. Loving, 946 Berkley St., Carpentersville, IL 60110
IL-063	John D. Miner, 1567 Ridge Ave., Apt. 405, Evanston, IL 60201
IL-	Jeff McKnight, 4115 W. 90th Pl., Hometown, IL 60456
IN-	Vernal Wagoner, 701 Washington St., Crawfordsville, IN 47933
IN-	Mark Jones, 507 West Hill St., Wabash, IN 46992
IN-	Benny E. Devitt, 4723 Blum Dr., Fort Wayne, IN 46815
LA-005	Lewis C. Prettyman, P.O. Box 416, Grand Isle, LA 70358
LA-	C. N. Wells, Rt. 7, Box 213, Baton Rouge, LA 70807

(New Member list continued on page 31)

PAID ADVERTISEMENT

In the October Newsletter, a member expressed concern that information submitted to the Newsletter was being used by another member to "turn a buck." Editor Iden Rogers, in reply, indicated that the member was possibly referring to me and the publications I edit.

I thank Iden for rising to my defense, but I also want to make my own position clear:

- Most of the information sent to the Newsletter is sent to Police Call at the same time.
- Police Call usually receives the same information from several correspondents, especially when there has been some change in a system.
- Members get frequency information monthly; similar information does not appear in Police Call for at least four months.

I would not knowingly abuse my membership in RCMA. I hope to continue being a member long after I retire, and giving it the support it deserves.

Finally, a heartfelt "thanks" for the beautiful plaque. I cannot really express just how proud I feel at receiving this undeserved award.

Gene Hughes

SATELLITES

Bill Blomgren & John Coker, Editors

Send information about satellite frequencies which you have received with type of traffic heard, orbital data, hobby receiving equipment and antennas and questions pertaining to satellite monitoring to: Bill Blomgren, 505 E. Mulberry, #3, Normal, IL 61761.

The following frequencies represent commonly used downlink channels allocated to NASA's Goddard Space Flight Center at Greenbelt, Maryland. These channels are often used for more than one mission at a time. We are unable to assign satellite names to all frequencies. If any of the RCMA membership can assist us in tieing these frequencies to specific satellites, please let us know. Also, if you find any of this information to be inaccurate, drop us a note so we can correct it.

VHF FREQUENCY ALLOCATIONS FOR GODDARD SPACE FLIGHT CENTER

Downlink Frequency	Modulation Type	Geostationary Satellite	Non-Geostationary Satellite	Satellite Name
135.4700	FM	Yes	No	ATS-5
135.5600	FM	Yes	No	GOES-3
135.6000	FM	Yes	No	ATS-1,3
136.0200	FM	No	Yes	
136.0800	FM	No	Yes	
136.1100	FM	No	Yes	
136.1450	FM	No	Yes	
136.1700	FM	No	Yes	HCMM
136.2000	FM	No	Yes	
136.2300	FM	Yes	No	ATS-6
136.2600	FM	No	Yes	
136.2900	FM	No	Yes	Hawkeye
136.3200	FM	No	Yes	GEOS-3
136.3800	FM	Yes	No	SMS-1,2
136.4100	AM	No	Yes	
136.4400	AM	No	Yes	
136.4700	FM	Yes	No	ATS-1,3,5
136.5000	AM	No	Yes	Nimbus 5,6
136.5900	FM	No	Yes	
136.6500	FM	No	Yes	
136.6800	FM	No	Yes	
136.7100	FM	No	Yes	
136.7400	FM	No	Yes	SM/DL
136.7700	FM	No	Yes	Tiros-N
136.8000	FM	No	Yes	
136.8100	FM	No	Yes	ISS-B
136.8300	FM	No	Yes	SSS-A
136.8600	FM	No	Yes	Landsat-2
136.8900	FM	No	Yes	
136.9200	AM	No	Yes	
136.9500	FM	No	Yes	Nimbus 4

Satellites (continued)

Downlink Frequency	Modulation Type	Geostationary Satellite	Non-Geostationary Satellite	Satellite Name
136.9800	FM	No	Yes	Syncom-3
137.0500	FM	No	Yes	OTS-2
137.1100	FM	Yes	No	ATS-6
137.1400	FM	No	Yes	Tiros-N
137.1950	FM	Yes	No	SMS-2
137.2300	FM	No	Yes	AE-C
137.3500	FM	Yes	No	ATS-1,3,5
137.5000	FM	No	Yes	Tiros-N
137.5600	FM	No	Yes	UK-6
137.5700	FM	No	Yes	
137.5750	FM	No	Yes	
137.5800	FM	No	Yes	
137.6200	FM	No	Yes	Tiros-N
137.7700	FM	No	Yes	Tiros-N
137.8600	FM	No	Yes	Landsat2,3
137.9200	FM	No	Yes	
137.9800	FM	No	Yes	
139.0566	AM	Yes	No	ATS-6
140.0560	AM	Yes	No	ATS-6
141.0564	AM	Yes	No	ATS-6
149.9873	AM	No	Yes	
149.9880	FM	No	Yes	Transit
150.0000	PM	No	Yes	

AM = Amplitude modulation
FM = Frequency modulation
PM = Pulse modulation

Wayne (CA SL 002) reports that he has been monitoring satellite telemetry data on the following channels 135.575, 135.600, 149.915, and 150.000. Wayne is using a Bearcat 220. Wayne also reports receiving weak voice and data transmissions on 165.165 MHz and wonders if these signals could be from a satellite. Wayne is located near Vandenberg Air Force Base. Can anyone help Wayne?

Editor's Note: 165.1625 is an assigned frequency for Vanderberg and is used throughout the United States by the Air Force. I am not aware that it is being used as a satellite downlink but anything is possible!

Next month we will begin to discuss the UHF satellite frequency range from 225 MHz - 400 MHz. We will be paying particular attention to the 240 MHz - 270 MHz segment of this band which is the area where most satellite downlinks occur.

NEW MEMBERS (continued from page 28)

MA-023 Michael R. Iacono, 168 Spring St., Medford, MA 02155
MA-024 James Broadbent, 78 Squanto Rd., North Weymouth, MA 02191
MA- E. B. Hastings, 238 Academy Dr., Longmeadow, MA 01106
MA- Douglass A. Grant, 43 Highland Ave., Lynn, MA 01902
MD- Joe M. Lewis, 3002 Gumwood Dr., Hyattsville, MD 20783
MI-024 James Woodgate, 4512 N. Saginaw Rd., Apt. 934-C, Midland, MI 48640
MI-025 Sylvia Perttunen, 11764 Raintree Ct., Utica, MI 48087
MN- James J. King, 58-105th Ave. N.W., Coon Rapids, MN 55433

(New Member list continued on page 36)

photo department

Send photographs of custom monitor listening posts, unusual or extensive monitor or two-way antenna systems, user station consoles (PD, Fire, Paramedics, etc.) or other monitor/two-way related equipment of interest. Photographs must be 3 x 5 inches or larger, black-and-white with good contrast, sharply focused and attractively composed. Each photo must be accompanied by details and explanations of equipment. Photos will not be returned. If you have questions, write first and please include an SASE.

This month's photo comes from GARY (CA-LA-048). From top left to right: Windscope wind speed indicator, Bearcat 250, Bearcat 210. Desk top left to right: Siltronix antenna coaxial switch box, Scanfare VHF High/Low four channel scanner, Bearcat 220. Feeding this array of equipment are an Avanti AV-801 and a Starduster. Gary has been able to artistically blend his radio hobby into a well designed setting- one that would please even the most descriminating houskeepers. Gary is a photographer by trade, which shows in the high quality of his system photograph.

So where's yours? What better time to dig out that camera and pop in that roll of B/W film? Don't think your system wouldn't be fancy enough to show off!

Remember, if you use any people in your photo be sure to get written permission from them to use their likeness in our Newsletter, and be sure to send it along. And make sure you get permission before you start snapping pictures at your local PD. See you next month with more exciting photos!

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below. For an annual subscription to the monthly "ANARC Newsletter" send $3.50 to: ANARC, 557 N. Madison Ave., Pasadena, CA 91101.

SOUTHERN CALIFORNIA DXERS WIN ANARC 1980 CONVENTION VOTE

ANARC club representatives chose the University of California at Irvine as the location of the ANARC 1980 convention, July 18, 19 & 20.

Based on indications of interest already shown, the ANARC 1980 convention committee is anticipating an attendance equalling ANARC's super-successful 1979 Minneapolis, MN convention. DXers from all over North America plus broadcasters and DXers from overseas are expected to be there. Convention details will appear in a later Newsletter.

For the record, ANARC Conventions began in 1966 at Kansas City, MO, followed by 1967, Chicago, IL; 1968, Omaha, NB; 1969, Toronto, Ontario; 1970, Chicago, IL; 1971, Indianapolis, IN; 1972, Boston, MA; 1973, San Diego, CA; 1974, Bronxville, NY; 1975, Montreal, Quebec; 1976, Los Angeles, CA; 1977, Palatine, IL; 1978, Montreal, Quebec; and 1979, Minneapolis, MN.

ANARC ROUND-UP OF CLUBS INDICATES ALL ANARC CLUBS ARE IN GOOD CONDITION

The annual "Round-Up of Clubs", required by the ANARC Constitution, shows all our ANARC clubs, now totalling 21 in U.S. and Canada, are stable and increasing their membership. The DX hobby is growing as evidenced by the fact that ANARC is receiving nearly 100 requests per month for our "ANARC List of Clubs".

WARC 79 SESSIONS NOW IN PROGRESS IN SWITZERLAND

The all-important 1979 World Administrative Radio Conference (WARC) opened in late September with delegates from practically every nation in the world. The "developing third world nations" are demanding greater recognition and frequency allocations. The international conference will determine all worldwide frequency allocations through the remainder of this century. It will decide the scope and direction of modern electronic radio communications and the future of broadcasting in North America.

For WARC reports, we suggest you tune in Radio Canada International's "DX Digest" Sunday morning (African Service) at 1800 on 15260 and 17820 KHz and Sunday evening to North America at 0100, 0200, 0300 and 0400 GMT on 5960 and other frequencies or to Radio Nederland's DX Juke Box to North America at 0230 on 9590 and 6165 KHz and at 0530 on 9715 and 6165 on Thursday evenings. There will also be WARC 79 reports on Swiss Radio International's "Swiss Shortwave Merry-Go-Round" on the second and fourth Saturdays at 1320 on 21570, 1820 on 21585, 0150 and 0435 on 15305 and other frequencies.

RCMA Editor's note: The following receiver description is the only receiver among many listed in "The Marketplace Report" of the ANARC Newsletter that receives frequencies above 30 MHz.

Zenith Royal RG1000Y - This is Zenith's only portable receiver besides the Trans Oceanic. It has 6 bands covering AM, FM, VHF Lo (30-50 MHz), VHF Hi (144-174 MHz), VHF-Air (108-136 MHz) and UHF PSB (450-470 MHz). It will operate off of either AC or DC and the Canadian list price is $179.95. The price in the U.S. is not known at this time.

Railroads

Ken Fitzgerald, Editor

Send information about railroad frequencies and their uses, radio system details, tips for monitoring railroads, explanations of railroad jargon and related information and questions to: Ken Fitzgerald, P.O. Box 307, Springer, OK 73458.

As you can see from the column heading, we have a new "Railroads" editor. He will be introducing himself in the January issue in his first column. This month's column has been prepared by our original "Railroads" editor, Marvin Suggs. I would personally like to thank Marvin for his help in pioneering this column and for being a sincere and conscientious editor. He also suggested the symbol which we now use in the column heading.

Well Railfans, I guess I'll begin this month's column by defining a few railroad terms.

ON THE GROUND--a derailed car.

HIGHBALL--make a fast run.

HUMP--an artificial hill or inclined track, within a railroad yard, that permits a car to roll on its own momentum to separate tracks.

RAILROAD MAIL

SOUTHEASTERN FLORIDA RAILROAD MONITORING

From KEN (FL-025):

Seaboard Coast Line	South Florida	B/M	160.590 Yards
" " "	" "	B/M	161.100 Main Channel
Florida East Coast	All Florida	B/M	160.530 Channel 1
" " "	" "	M	160.650 Channel 2

Ken also writes: Sometimes channel 1 is used for both sides of a conversation, sometimes trains and other mobiles use channel 2 and wayside stations talk back on channel 1 (F.E.C. only).

The Florida East Coast is the only railroad that I have ever heard use callsigns, and both were recordings; on their milepost 331 defect dectector (KUX313) and on their "Fort Lauderdale drawbridge detector", (KZI397, formerly KB9610). Perhaps someone has more info on this.

SOUTHERN OHIO RAILROAD MONITORING

From MARK (OH-001): Ohio has several rail lines serving it. But it has to be the giant of the industry, Conrail, that is the giant in this state. There is no part of Ohio that is not served by it,and this is due to Conrail's absorption of former industry leader Penn-Central, and the slightly smaller Erie-Lackawanna. Most of its cargo is miscellaneous freight,such as finished products of industry,raw materials; and coal. It is not uncommon to see cars and cars of nothing but coal file by the crossings. Most of this activity is in the southeastern part of Ohio and West Virginia, in the Dickinson area.

Conrail,when it was formed,created an unique "symbol" system to designate its trains. It most generally consists of four letters and one number. The first two letters designate the point of origin and the last two the point of destination. The single number denotes the date that train departed its paint of origin. Thus, a "SL-EN 3" would be a St. Louis to Enola,(Harrisburg) Pa. train that left on either the 3rd, 13th or the 23rd of the month. The only drawback to this idea are trains with the number "1". If the month has 31 days, does someone at Conrail know if it departed on the 31st or the first of the month if it is the 3rd of the month?

Railroads (continued)

The "unit" coal trains which I mentioned above previously. starts with the letter "U" and two other letters. Instead of using a number which tells the date of departure, a unit train will instead sequentially number these trains. Thus, a train symboled "UPW 45" is a unit train from a Peabody Coal Co. mine and the 45th such train of either the month or the year. Simple? Sure if you know how!

Now to the "meat" of Conrail, its frequencies! On the western edge of Columbus,Ohio is one of the newest (ten years old) of Conrail's classification yards. "Buckeye" as it is known is four and a half miles long and nearly a half mile wide! The major frequency used at "Buckeye" is 161.070MHz. "North Tower" yardmaster is the person responsible for seeing that all trains arrive and depart on their respective tracks and to call leased "satellite" taxicabs to pick up train crews and handle waybills to the "Hump" office. As you can imagine, this frequency is always busy day and night. In addition to "Buckeye",the South Columbus office's "Frankfort Street" tower handles train traffic through my county (Fairfield Co.) down through New Lexington. Then Corning takes over to the end of Ohio at the Ohio River. Obviously,the use of this frequency and procedures used are a carry-over from the days of New York Central Railroad,of which this trackage did belong to. And,due to the fact that this trackage is non-CTC, all "Clear Blocks" are handled by a verbal "K-card." So you really feel that "you are there."

In addition to the use of 161.070 MHz, "Buckeye" also uses many secondary,but important, channels. Conrail,as a system, uses 160.800 MHz as their general "Interlocking" tower frequency. "Buckeye" uses it as the "air test" frequency to test the newly made train airbrake systems. And of course the "Hump" yardmaster is chiefly responsible of sending the cars over the "Hump" and routed to the proper classified tracks in the yard. 160.860 and 160.980 MHz are the "Hump's" frequencies. 160.755 MHz is "Buckeye" yard crew and administrative.

Finally,in my view of the Conrail system, Conrail and Amtrack overall administrative usage is found on 161.130 MHz. It's not uncommon to hear one Chief Dispatcher talking to another regarding obtaining "power" for a run,as a helper or for the "head end."

Next in line for coverage in Ohio is the Chessie System-both Chessipeake and Ohio,and Baltimore and Ohio. Columbus seems to be home of several large yard. C & O has its "Mozell" and "Mason" yards on the south side of Columbus in a section known as "Steelton" due to its history steel foundries there. Chessie's part of the "pie" surely can not match the impressiveness of Conrail's yard activities,but it still has its duties. The main channel used by "Mozell" and "Mason" is 161.160 MHz. Secondary use is on 160.230 MHz (also for B & O's Newark,Ohio yard). Internal yard crew traffic is heard on 160.590 MHz which is a repeater output.

Finally, we get to the Norfolk and Western rail system. Its coverage nearly splits the southern part of Ohio in half. N & W's "Heaviside" yard is not far from C & O's two yards. Most of N & W activity lies on 161.190 and 161.250 MHz.

So that's rail road coverage in Central Ohio. If you think that I gave to much coverage to Conrail then you haven't heard the rail giant lately! Remember,if you live in the eastern half of the U.S. your best bet for enjoyable railroading are on 160.800 and 161.070 MHz. Try it yourself and you might be hooked as well on those "blue flags" and "Derails."

PITTSBURGH AREA RAILROADS
From RICH (PA-027):

Baltimore & Ohio R.R.	160.230
Union Railroad	160.260

Railroads (continued)

Penn Central Railroad	160.710
" " "	160.800
Pittsburgh & Lake Erie R.R.	160.890
" " " "	160.920
" " " "	161.070
Pittsburgh & Ohio Railroad	161.370
Monongahela Connecting R.R.	161.220
" " "	161.400

MONITORING CONRAIL AND AMTRAK

From PATRICK (CT- ?): On the New Haven Line (Grand Central Term. to New Haven, CT.), the Conrail commuter trains (MU'S), use 161.280.This is mainly communication between towers, trains, or usually communication between towers and trains. Conrail freights on the New Haven Line usually use 161.070, but sometimes may use 161.280. Amtrak trains are assigned to 160.800, but also are occasionally heard on 161.070. The Conrail Police Dept. uses 161.22, but may use 161.280, in order to communicate with a nearby tower. "Berk" tower is in So. Norwalk, CT, "Shell" tower is in New Rochelle, "Vern" tower is in Mt. Vernon, N.Y.,"Pike" tower is near Rye, N.Y., "Green" tower is in Greenwich, CT, "Stamford" tower is in Stamford, CT., "Cob" tower is on Cos Cob Drawbridge in Greenwich, CT., "Walk" Drawbridge is in So. Norwalk, CT.

On a recent trip on Amtrak's "Montrealer", I also discovered a few things. In Conrail Territory, Amtrak trains usually use 160.800 or 161.070. In Boston & Maine territory, they use either 161.400 or 161.520. In Central Vermont territory, they use C.V. Channel 1, 161.415. C.V. Channel 2, which has an abnormal amount of background static, is 161.205. The U.S. Customs & Immigration frequency used at St. Albans is also used by the Swanton, VT. (closer to the border, adjacent to St. Albans, VT.) Police Dept. is 163.625.

Patrick also adds: The coach section of most Amtrak snack bar cars has 2 or 4 outlets, so it's possible to plug in your scanner even if you don't have a bedroom. The "Amlounge" car on the "Montrealer" also has outlets.

ILLINOIS FREQUENCY INFORMATION

THOMAS (IL-030) sent me a copy of the Illinois computer print out of railroad frequencies and assignments, so if any of you Illinois railfans have any questions regarding frequency usage or other info, please let me know. Thanks a lot for the info Tom!

That about wraps it up for this month. My thanks goes out to you contributors, and keep the information coming.

And from Port Arthur, Texas, MERRY CHRISTMAS & HAPPY NEW YEAR!!!

NEW MEMBERS (continued from page 31)

MN-	Lawrence Ohl, Jr., 4160 Utica Ave., St. Louis Park, MN 55416
MO-	Armand F. Johnson, Rt. 3, Box 168, California, MO 65018
MS-	Danny E. Hambers, 49 Pepperbrook Cove, Southaven, MS 38671
NC-008	Harry McCabe, 202 Queen Guenevere Trail, Garner, NC 27529
NC-	William J. Gibbs, Jr., Rt. 1, Box 271-B, Columbia, NC 27925
NJ-030	Louis J. Runz, Jr., P.O. Box 79, Mt. Freedom, NJ 07970
NJ-	R. Cunningham, P.O. Box 665, East Orange, NJ 07019
NY-061	Lynn E. Hales, PSC Box 2823, APO New York 09755
NY-	Douglas C. Gillespie, P.O. Box 124, Petersburg, NY 12138
NY-	Benjamin Thomas, P.O. Box 2247, Mount Vernon, NY 10550
NY-	Scott Glazer, 330 Lagoon Dr. West, Lido Beach, NY 11561
NY-	Sheldon H. Bank, 1140 East 108th St., Brooklyn, NY 11236

(New Member list continued on page 68)

COMMUNICATIONS CENTER

915 NORTH EUCLID • ANAHEIM, CA 92801

714–635–10-33

ATTENTION ooooooooo!
Limited Opportunity

Scanner enthusiasts—here is your chance to combine the pleasure of your hobby with additional income!

We are now accepting selected areas of the country to sell scanners and accessories. Communications Center is a unique operation with seven years experience as a successful distributor, specializing in scanners and accessories. We have been written about in national magazines, and are a recognized authority on the subject.

Our cost to you and sales tips will probably beat anything you find anywhere. We feel sure that with your experience as a monitor hobbyist and our arrangement it will be of mutual benefit for us to get together!

Write us, enclosing a copy of your state resale/tax exemption certificate, and provide brief details of your existing or proposed operation. (Check your local agencies for obtaining proper business certificates if you don't have them already.)

ONE OF THE LARGEST SELECTIONS OF SCANNER RADIOS AND ACCESSORIES IN THE COUNTRY

Aircraft

Mark Holmes, Editor

Send private, commercial, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands associated with airports and aircraft plus questions, articles, and tips related to aircraft monitoring to: Mark Holmes, 1601 W. Maplewood, Marion, IL 62959. Please send all military aircraft frequencies and info to the "MILITARY" column.

EDITOR'S COMMENTS

Thanks to Rick Stein (NJ-1) for contributing to this months aircraft column.

Please do not send in airport ATC frequencies since they are listed in various publications, such as charts, etc. The frequencies are appreciated, however space is limited and the frequencies are readily available elsewhere.

I am wanting to compile a listing of the VHF/UHF business frequencies which are used by the airlines. At this time, do not send in frequencies for the 128.85 thru 132.0 MHz range since they will be covered in a different method.

There are many members reading this column who are just getting into aircraft monitoring, while others have many years of experience. In the February column, I want to compile a listing of books, publications, literature, etc. that would benefit all of us who monitor this frequency band. For the members who would like to contribute, give a short description, number of pages, the price, how to order, etc. Please do not mention aeronautical charts or approach plates since they will be covered in the March issue.

As we all know, the campaign for President of the United States will be getting into full swing very soon. I think it would be interesting for members to report the radio call signs which the candidates will use for their aircraft. In the last election, for example, the call sign for President Carter's aircraft was "Peanut One," while the aircraft in which the press traveled in was dubbed "Peanut Two." Both aircraft were United Airlines 727's.

QUESTIONS/CORRESPONDENCE

From Rick Stein (NJ-1): Recently, I watched five small aircraft skywriting. They flew abreast of each other on parallel courses in a straight line. Each aircraft would let out smoke at precise intervals, which together, formed the letters as they flew. This would be to difficult to coordinate by voice, so I assume it is done by a remote control radio system with the transmitter in one of the aircraft. It must have a means, perhaps a perorated tape, of giving remote control commands. What frequency might this occur on and what are the details of the remote control system?

DEFINITIONS

GROUND POINT SIX "TWA 145 RIGHT TURN NEXT TAXIWAY AND CONTACT GROUND POINT SIX AS YOU CLEAR" With the exception of a handful of airports in the United States, the standard ground control frequencies begin with 121 MHz, such as 121.6, 121.65, 121.7, 121.75, 121.8, 121.85 and 121.9. Instead of telling an aircraft to call ground control on the specific frequency, the controller may say the words "contact ground," which means 121 MHz, and "point six," which would mean the remainder of the frequency, .7.

HEAVY JET "ATLANTA CENTER NATIONAL 86 HEAVY CHECKING IN AT FLIGHT LEVEL THREE NINER ZERO" For the purposes of wake turbulance seperation, ATC classifies

Aircraft (continued)

aircraft as small, large or heavy. A heavy aircraft is capable of takeoff weights of 300,000 pounds or more, regardless of whether or not they will be operating at this weight during a particular phase of flight. Aircraft which this would pertain to would be: all series 747's, all series DC-10's, all series L-1011's, all series A-300's, stretch DC-8's and large 707's.

INTERSECTION "REPUBLIC 242 CROSS THE LANCE INTERSECTION AT AND MAINTAIN ONE ZERO THOUSAND" A position established by the intersection of radials emanating from two VOR stations, or one VOR station and a localizer. There are literally thousands of intersections in the U.S. and each one is given a different name.

EDITOR'S NOTE: The FAA has implemented major changes to the coding and assignment of air traffic operational codes used in the National Airspace System by ATC personnel and in related activities. The change is to simplify flight plan filing and processing, and to minimize encoding and decoding of data. All intersections, fixes, waypoints and ILS marker names will eventually be replaced by five-letter pronounceable names, if not already.

PILOTS DISCRETION "EASTERN 200 DESCEND AND MAINTAIN FLIGHT LEVEL TWO FOUR ZERO AT PILOTS DISCRETION" This term generally pertains to altitude assignments, whether on climb or descent. If a controller has cleared a pilot to descend at pilots discretion, ATC has offered the pilot to descend whenever he wishes and conducting the descent at any rate he desires. The pilot may level off at any intermediary altitude, but once he has vacated an altitude, he may not return to that altitude.

RUNWAY HEADING "BRANIFF 208 MAINTAIN RUNWAY HEADING CLEARED FOR TAKEOFF RUNWAY THREE ZERO" Runways are numbered to correspond to their magnetic bearing. Runway 1 has a bearing of 10 degrees, runway 2 has a bearing of 20 degrees, runway 3 has a bearing of 30 degrees, etc. Runway numbering begins with 1 and extends thru 36, 10 degrees thru 360 degrees. If a pilot is instructed to maintain runway heading after takeoff from runway 30, the aircraft is to fly a heading of 300 degrees until a new heading is issued.

FLIGHT SERVICE STATION

A major communications facility which pilots use quite extensively is the Flight Service Station, of which there are over 300 located throughout the United States.

FSS personnel provide pilots with with all types of flight information such as current altimeter settings, advisories on weather conditions which might be encountered, plus other useful information which would be of help for a long flight. Although the majority of flight plans are filed by telephone, it is not unusual to hear several handled over the radio on any given day.

One common method of contacting the FSS, is for the pilot to transmit on 122.1 and receive the FSS on the VOR frequency. On the initial call, the pilot will indicate the frequency or VOR station that he is monitoring.

Several navigation facilities may be remotely controlled by one FSS. The controlling FSS, and its communication and navigation frequencies are shown on sectional charts.

Flight Service Stations operate in the frequency ranges from 121.975 thru 122.675, plus 123.6 and 123.65.

FLIGHT WATCH

En Route Flight Advisory Service (EFAS) or Flight Watch is designed to provide pilots with timely weather information for their flight. The FAA has established Flight Watch at 44 Flight Service Stations throughout the United States, with remote communication outlets at another 150 sites.

Aircraft (continued)

The Flight Watch service is operated on the frequency of 122.0, 7 days a week normally between the hours of 6 a.m. and 10 p.m. local time.

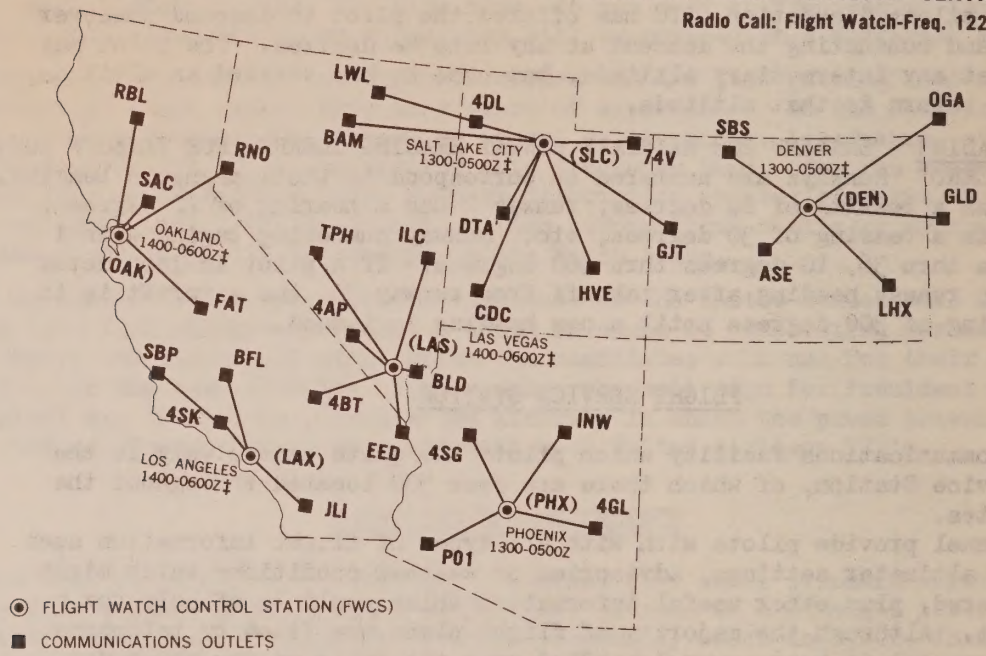
In addition to the standard weather service data available from all Flight Service Stations, Flight Watch specialists have access to the National Facsimile Network which provides them with surface weather depiction, radar summaries and upper air analysis charts. In addition, they receive charts with 12 and 24 hour forecasts of surface weather and high and low level winds.

Pilots are urged to report winds, turbulance, wind shear, visibility, temperature, icing and other weather conditions experienced so that Flight Watch can relay that data to other pilots who request advisories for the same area. Thus, a report from one pilot may help many others.

(A note by THE editor: The last page of each volume of the Airport/ Facility Directory has a diagram, see below, showing the Flight Watch control stations and remote communications sites. This can explain why the ground station can be heard some of the time and not at others since the operator can use any single remote site that he chooses. IBR)

ENROUTE FLIGHT ADVISORY SERVICE (EFAS)

Radio Call: Flight Watch-Freq. 122.0



The following was taken from the December 1979 issue of "Communications Center Bulletin", 915 North Euclid, Anaheim, CA 92801:

New frequency assigned for air-to-air helicopter communications. The rapid expansion of helicopter radio requirements have brought about the creation of 123.025 as the newly authorized frequency by the F.C.C. Some older radio equipment does not allow use of this new "split" channel, but some users are expected to change at once from 122.75, the most commonly used frequency now, since it also includes some other non-compatible uses.

Some helicopters typically heard here in the L.A. area on 122.75 now are: C.H.P. "H8", L.A. County Fire "Copter 4, 10, 11, 14, 15", L.A.P.D. "PD3, 6, 10, 11, 16" (also known as "Air 3" etc. on Tac. frequencies), Pasadena "PD1, 2", L.A. County Sheriff two numerical and one alpha identifier; "Argus, Skynight", KMPC "Airwatch".

FCC TOPICS

tr George DuBois, Editor th

Send FCC news and information of interest that relates to two-way communications above 30 MHz and questions regarding the FCC Rules and Regulations to: George DuBois, 10048 NE Campaign, Portland, OR 97220.

This month we'll detail Part 90.21, the Fire Radio Service. Eligible agencies include any territory, possesion, state, county, city, town, organization or person charged with specific fire protection activities. If the person or organization isn't a government entity they must have the approval of the local government having jurisdiction over the area in order to be licensed in this service.

Low-band channels available start at 33.42 mHz and go in .02mHz steps through 33.98 and similarly from 46.06 mHz through 46.50. UHF frequencies start at 453.05 and go in .05 mHz steps through 453.95. Also, the following: 460.525, 460.55, 460.575, 460.6 and 460.625. The UHF channels are shared with other services. The mobiles are 5 mHz higher than the repeater output. VHF-hi channels are:

153.77	154.07	154.19	154.31	154.385
153.83*	154.13	154.205	154.325	154.4
153.89	154.145	154.22	154.34	154.415
153.95	154.16	154.235	154.355	154.43
154.01	154.175	154.25	154.37	154.445

(*-low power)

Two additional frequencies are available within 150 miles of New York City,NY, namely 166.25 and 170.15 mHz.

Some of these frequencies are only available for mobile use, but I didn't bother to indicate them as such because it really doesn't mean much. All a potential applicant has to do is prove they won't cause interference to other stations and they can be licensed for base station use also.

45.88, 154.265, 154.28 and 154.295 are available for intersystem operations, 154.28 being the most common mutual aid channel around the country.

A lot of people don't realize repeaters <u>are</u> allowed on VHF in the Fire Radio Service, although most departments don't have the need for repeater operation. Washington County, outside Portland, for example, has a repeater on their F-<u>2</u>. Cleveland, Ohio uses low-band repeaters. Those low-band channels are happy hunting grounds for skip-chasers right now. Even on days with the lowest MUF, the 33 mHz channels will always be open during the day, all winter long. Being part of the Public Safety services, they are listed in Police Call, making identification easy. They are most heavily used in the East, making them easy DX for West-coasters. One final allocation (for you IRCA members) is 1630 kHz.,but don't hold your breath waiting for this one to key up.

<u>UHF-TV Sharing (T-band)</u>

One other loose end we have to tie up is the T-band allocations. These only apply to areas within 50 miles of the following cities: Boston, Chicago, Dallas, Houston, L.A., Miami, NYC, Philadelphia, Pittsburgh, S.F., and Washington,DC.

FCC Topics (cont.)

They were allocated 6 or 7 years ago to relieve congestion on the existing UHF channels in the larger cities, and in some cities, even these are all filled up. No matter how I explain this it's going to be confusing. Since we covered the Fire Radio Service this month, here's how Los Angeles TV channels 14 and 20 are assigned for all the Public Safety Radio Services, although the channel 14 is similar in Boston, Chicago and New York City.

The Public Safety pool (police, fire, highway maintenance and forestry-conservation) is allocated channels from 470.3125 through 471.1375 in .025 mHz steps (through 471.4125 in NYC) and from 506.3125 through 507.2625. In NYC you also have TV channel 15 which is 6 mHz higher than 14. In Boston you also have channel 16, 482.3125 through 483.1375. In Chicago you have all of channel 15, 476.3125 to 478.9875, which is a pool for all users. Washington,DC has 488.3125 and 494.3125 through 495.4125.In Miami, Dallas and Houston channels are centered on 470.7125, going up and down in sequence from there. Philadelphia and San Francisco have a long list of discrete channels which I can send you for a SSAE. In all cases the mobiles are 3 mHz above these channels. The other cities have no Public Safety allocations (yet). I hope this is clear enough. More on T-band later.

Score one for the GPO

The new FCC Rules and Regulations, Volume Five was recently printed. It contains Part 87, the Aviation Services, and the new Part 90, which combines the old Parts 89, 91 and 93, Public Safety, Industrial and Land Transportation, respectively. The individual services in each Part differed widely, of course, but the technical standards are all very similar and the old Parts essentially duplicated each other. According to what Ken Pehl told me, this was one of the final acts of the last FCC chairman and was in the same vein as the 'simplified' Part 95 (CB) and the separation of Volume 6 into individual Parts, a considerable savings to John Q.Public. A re-editing of this magnitude naturally results in a few errors and the new Part 90 is full of them. For weeks the Federal Registar has been publishing corrections and a corrected update should come out soon. Since it contains about 80% of the pages in the old edition it is something of a bargain in these inflationary times, the subscription price being $15.00, about a three dollar reduction. Address: U.S.Govt. Printing Office, Wash.DC,20401. A cheaper alternative is to peruse them for free at an FCC office. Curiously, the FCC did just the opposite with Volume 7 recently, dividing the land mobile from the fixed Domestic Public services creating a new Part 22! They're supposed to rewrite the whole Volume soon. The wheels turn slowly.

Best Wishes for the Holiday Season

contact/info wanted

The purpose of this column is twofold: 1) CONTACT --- It helps members to contact other members. If you want to meet, telephone or correspond with other members (by letter or cassette tape) in a certain geographic area or with members who have similar listening interests, this is the place to say so. 2) INFO WANTED --- This column helps members to obtain information directly from other members on various subjects related to two-way communications monitoring above 30 MHz.

Members who wish to contact you will do so directly, so be sure to give your phone number and best time to call and/or your address. Write to: Larry H. Brown, 1717 Leith St., Flint, MI 48506.

I have recently purchased a Regency K500 and would like to correspond with anyone who has successfully de-programmed the unit to receive out of band frequencies. Information contained in previous Newsletters has not worked for my unit. JOHN MacMILLAN (MA-005), Box 566, Asburnham, MA 01430, (617)-827-4869 before 10pm EST.

Would like to tapespond with other scanner freaks. GARY BOURGOIS, Studio B, 135 Washington St., Marquette, MI 49855.

Wish to speak or correspond with members who have experienced using portable frequency counters. TONY LOVING (NJ-005), 231 Kinderkamack Rd., Westwood, NJ 07675, (201)-325-6801, 9am-5pm EST.

Clint would like to exchange frequency data with anyone in Northeast Pennsylvania and federal government data with anyone on the East Coast. C.A. CHAMBERLIN (PA-031), 10 Old North Rd., Mountaintop, PA 18707.

Any member interested in exchanging information on federal freqs and radio systems is welcomed to write me. BILL DEVER (AR-001), Route 2, Box 277, Hot Springs, AR 71901.

Washington and lower British Columbia members interested in meeting with Oregon members in Portland in January, call/write G. DuBOIS, 10048 NE Campaign, Portland 97220. Specify prefered day, Saturday or Sunday. Tour to include Port of Portland Airport Police facilities.

I'm interested in finding out if anyone would enjoy exchanging photographs of your local police, fire, etc department vehicles. You may be fascinated by a photo of a Philadelphia police vehicle and I would like to view yours. To find out more information on this photo exchange, contact: LOU CAMPAGNA (PA-024), 9724 Bridle Rd., Philadelphia, PA 19115.

I would like to correspond with Nassau County and other New York members to trade info. Also anyone who would like to form a New York chapter of RCMA holding bi-monthly meetings/get-togethers, contact: EDDIE MURO, P.O. Box 318, Woodmere, NY 11598.

I would like to collect cassette tapes from California area members who monitor LAPD, LAFD, LACO FD, LACO Sheriff, CHP and paramedics. I will exchange it for a tape of police and fire activity in my area. THOMAS P. FRIEND, 2421 Wrights Way, Pittsburgh, PA 15203.

George is still trying to compile a Low Band military frequency list and would appreciate receiving info from any interested member. To receive a copy of his list when it is completed send an SASE to: GEORGE DuBOIS, 10048 NE Campaign, Portland, OR 97220.

Contact/Info Wanted (continued)

If you have a TRS-80 computer and would like to exchange ideas for monitor radio recordkeeping applications, contact: MARK COBBLEDICK, 5001 SW 73rd Terrace, Miami, FL 33143.

I would like to get my hands on the book by Tom Hayden that relates to monitoring but so far have been unable to obtain it. Can anyone help? CHRIS SMALLMAN, 306 Third St., Liverpool, NY 13088.

MONITORING & THE LAW

Bob McGovern, Editor

Send all articles, references, copies of monitoring laws and questions pertaining to the legal aspects of monitor radio listening to: Bob McGovern, P.O. Box 5041, Lighthouse Point, FL 33064.

IMPORTANT NOTICE: TONY (NJ-005) just advised that the New Jersey statute, number 2A:127-4 is still in effect and has not been repealed. Therefore, it is unlawful for any person to have in a motor-vehicle a radio operative on frequencies assigned by the FCC for fire, police, municipal or other governmental uses. The punishment for violation of this law calls for a fine of up to $1,000 and/or a term of imprisonment up to THREE YEARS. TONY also indicated that even if a motorist is using a programmable scanner not currently set for receiving the above mentioned services, he may be considered in violation of the law. So, for mobile monitoring in NJ, use a crystal-controlled receiver with crystals which are not for the above services.

Recently, an interesting letter was received by this editor concerning monitoring and the First Amendment. In the letter from NATHAN (FL-021), he states the following: "The First Amendment to the Constitution guarantees every citizens right to listen. Any state, or any other governing body, such as Philadelphia, is acting unconstitutionally when it legislates that right away. Section 605 of the Federal Telecommunications Act of 1934 sets forth the only restrictions which do not interfere with every law-abiding citizens right to listen. Any further legislation would be in conflict with the First Amendment."
NATHAN continues his letter by saying, "I believe that we should be informed citizens. The radio spectrum belongs to the law-abiding public. Departments and agencies who use these FCC licensed stations are manned and operated by public servants. We should be interested in knowing what these agencies are doing to serve and to protect the taxpayers from accident, crime, and arson. This lawful monitoring can serve to bring the taxpayers to a better awareness of what their tax dollars are buying. The state and local governments who attempt to outlaw monitoring may well be trying to conceal abuses or negligence."
NATHAN closes his letter by stating the following. "The First Amendment covers it. We need no new legislation. Maybe we need to organize a legal fund to aid those members

who are harrassed by monitoring laws in order to challenge those laws. It is only by being informed that we can serve as intelligent voters; and it is only by voting that we can make or change legislation that affects us."

Next month, another law will be presented and discussed; as well as column mail.

The following was taken from the November issue of "Communications Center Bulletin", 915 N. Euclid, Anaheim, CA 92801:

MONITORING AND THE LAW

As you are probably aware, certain areas of the country regulate the use of scanners. It may be a city, county, or state. In some places mobile monitoring may be prohibited while monitoring at home isn't. In other localities mobile monitoring may be allowed provided the scanner owner has a permit, which is variously issued by Sheriff, Police, Town Constable, Fire Warden, etc, etc. Qualifications to obtain the permit consistently vary - you must be a peace officer, or you must be a news media person, or you must have an amateur license, etc, etc.

Here in California there is no state law against scanner use but in Los Angeles County we have Ordinance #4322, written in 1944, which requires a permit for mobile monitoring in unincorporated areas served by L.A. County Sheriff's office. Many people believe it is outdated and, more than anything else, unnecessary.

There are obvious deficiencies in Ordinance #4322. For example, it states in Section I that radios being covered in the regulation are those capable of receiving frequencies between 1600 and 2500 KHz, 30 to 40 MHz, and 150 to 160 MHz. This means any vehicle that has a regular AM car radio is illegal, since they normally tune to 1620 KHz. On the other hand, scanners covering U.H.F. only would not be subject to control, so you could listen to all those L.A.S.O. frequencies at 470 MHz with no fear. Or, since a scanner covering the aircraft band would be legal, you could listen to all that interesting police helicopter activity! And what about a hand-held scanner? Would it be a "mobile" scanner?

The real objective in mind with the ordinance is of course to prevent other activities which are illegal, such as interference at the scene of an emergency. But, since interference is already an offense under section 148 of the California Penal Code, a more logical approach would be to cite individuals for violation of that regulation. In other words, "Persons on police or fire scenes whose presence interferes with the performance of official duties should be subject to arrest whether they have scanners or not. If they are interfering - they are interfering! It should not matter whether they have in their possession a monitor receiver, a telescope, or a box of animal crackers." (Quote from RCMA Newsletter)

If the above direction isn't taken, courts and attorneys are in for some interesting action very soon. Consider the following from APCO Bulletin of April 1977 (APCO stands for Associated Public Safety Communications Officers): "One area of interest needing to be served is that of legislation and local ordinances which attempt to control 'unauthorized' monitoring of public safety radio systems. We are led to believe that most such attempts have proved to be unworkable or unconstitutional at state and federal levels."

More recently, a notable decision came down this summer in the District of Columbia vs. McGhee decision. Although it related to radar detectors, it also alluded to radio receivers - including scanners: "Since it is the view of this Court that the legislation under which these penalties are imposed is unconstitutional and, since every day that a ruling is delayed citizens are being subjected to unfair and unwarranted

Monitoring and the Law (continued)

charge, this Court has welcomed the dismissal motion and rules on it accordingly."

A year ago it appeared that the "grandaddy" federal law of them all - The Communications Act of 1934 - was well on its way to a much needed total rewrite, and would include a modern day approach to scanner listening. The latest talk from Washington however is that it is now rather hopelessly snagged and delayed. Realizing the current situation, it appears the time is right to do something. The mailing list of this Bulletin includes several Judges and attorneys not only in the L.A. area but also in San Francisco, Salt Lake City, etc. We would be interested in hearing comments from this side as well as law enforcement people, specialists in communication, and the public in general.

RCMA members who read this are encouraged to also submit their thoughts to this column of the RCMA Newsletter. If you have monitoring laws in your area, please send copies to the column editor. If any of you have obtained a monitoring permit, a photocopy of it for use in the Newsletter would be nice along with an account of your experiences in obtaining the permit. IBR

MARKETPLACE

Members may advertise, free of charge, items wanted, items for sale and items for trade that are associated with the hobby of monitor radio listening above 30 MHz. No dealer ads accepted. Send to: Larry H. Brown, 1717 Leith St., Flint, MI 48506.

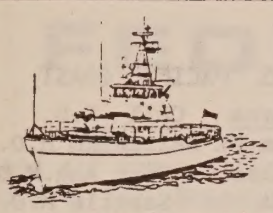
Please note that we have a new "Marketplace" column editor. A thanks to Larry Miller for his help and a welcome to Larry Brown. IBR

FOR SALE: Regency ACT-R-10 (H/L/U) with base and mobile accessories, $60. Crystals for Regency, Midland, and other 10.7 MHZ radios: 44.62, 44.78, 45.10, 46.46, 154.370, 154.755, 154.815, 154.845, 154.875, 154.905, 154.995, 155.130, 155.250, 155.295, 155.310, 155.340, 155.370, 155.490, 155.505, 155.580, 155.595, 155.625, 155.670, 155.775, 155.910, 155.925, 158.730, 161.670, 161.730, 161.760, 162.400, 162.550, 167.675, 450.150, 453.100, 453.250, 453.375, 453.650, 453.875, 460.500, 154.920, 155.820. Above listed crystals: $2.00 each. Cashier's check or Money Order gets UPS prepaid shipping. Bill Petrowsky, 401A Laredo Ct., Lexington, KY 40502. Phone: (606) 272-6432, evenings.

FOR SALE: Bearcat crystals (10.8 MHZ): 33.74, 39.58, 155.655, 158.76, 158.97, 161.25, 161.40, 161.52, 460.300, 460.375, 464.275, 470.4875, 470.8375, 471.0375, 473.5625, 473.7875. Regency crystals (10.7): 161.52, 460.375. $2.75 each. Bob Coate, 23 Leicester Rd., Belmont, MA 02178. Phone: (617) 489-0567 after 8:00 PM, EST.

FOR SALE: Regency ACT-T-16K, excellent condition, $200 with UPS shipping paid. Arnold L. Salmon, Route 1, Box 119, Canova, South Dakota 57321. Phone: (605) 523-2548.

FOR SALE. One set of microfiche of U.S. government frequency allocations. Consists of 34 fiche, the equivalent of over 9,000 pages of information. This is unclassified information obtained pursuant to the Freedom of Information Act. Only 1 set available. First check for $100 gets it by registered mail. Larry E. Price (GA-009), P.O. Box 2067, Georgia Southern Station, Statesboro, Georgia 30458.



VHF Marine

Rod O'Connor, Editor

Send information, articles, frequencies and how they are used and questions that relate to private, commercial and Coast Guard VHF maritime and inland waterways radio communications to: Rod O'Connor, USCG Group, 259 High St., South Portland, Maine 04106.

Several members have sent in frequencies, comments, and questions about this column. My thanks to all who have taken the time to contribute.

Robert FL-012 and Jan FL-010 have sent in some frequencies used in the Miami area, a few of which I will list:

44.760& Florida Game and Fresh Water Fish Commision
151.415 Base, Land, Mobile and Marine Use

44.960 Florida Dept. of Natural Resources: Fla. Marine Patrol Division, Recreation and Parks Division (Base,Land, & Mobile Use)

156.425 Univ. of Miami, under Navy Contract - Oceanographic Research
156.500 Dade Community College Oceanographic/Lightning Research

156.500 Biscayne Bay Pilots and Port of Miami Working Frequencies
156.700
461.375 - Base and
461.475 - Mobile use

172.575 U.S. Dept. of the Interior, National Park Service, Everglades National Park/Biscayne National Monument & Fort Jefferson National Monument (Dry Tortugas) Base, Land, Mobile, Marine

* *

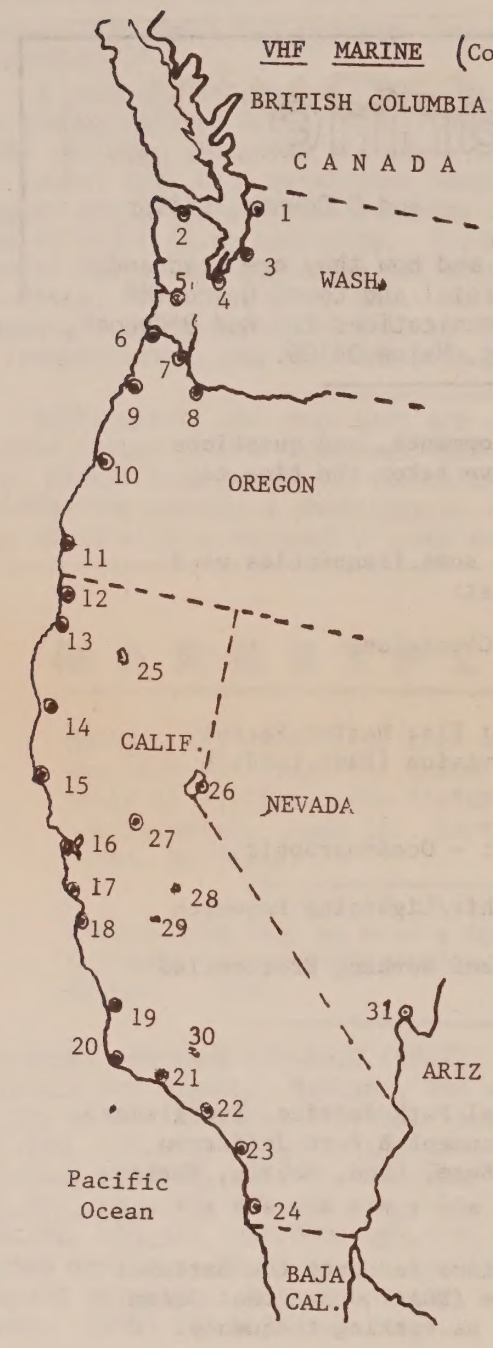
Several Members, as well as my own observations indicate the National Oceanographic and Atmospheric Administration (NOAA) - National Ocean Survey Vessels use VHF Channel 82 - 157.125 as working frequency.

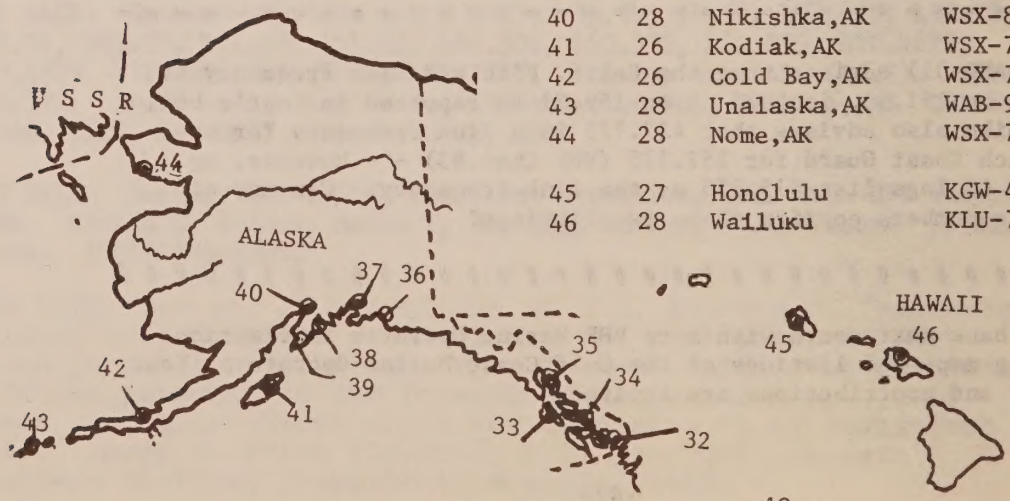
= =

Mike (IDAHO-01) advises that the Calif. Fish and Game frequency is actually on 151.43, instead of on 159.21 as reported in Sept's bulletin. Mike also advises that 417.775 is a link frequency for the Long Beach Coast Guard for 157.175 (VHF Chan.83) - - However, my official CG logs list 415.775 as the link frequency. Can any of the other members confirm these two listings?

# #

I'll be back next month with more VHF Marine Operator information, including maps and listings of the Gulf Coast Marine Operators. Your comments and contributions are invited.





U.S. MARINE OPERATORS PACIFIC COAST

Map#	Chan.	Service Area	Call I.D.
1	28	Bellingham,WA	Bellinghm M.O.
2	25	Port Angeles,WA	Port Ang.M.O.
3	25&26	Seattle,WA	Seattle M.O.
4	28	Tacoma, WA	Tacoma M.O.
5	28	Cosmopolis,WA	KQU-597
6	26	Astoria,OR	Astoria M.O.
7	28	Rainier,OR	Rainier M.O.
8	26	Portland,OR	Portland M.O.
9	28	Newport,OR	Newport M.O.
10	25	Coos Bay,OR	Coos Bay M.O.
11	27	Brookings,OR	Brookings M.O.
12	28	Klamath City CA	KTR-967
13	26	Kneeland,CA	Eureka M.O.
14	28	Caspar,CA	Ft.Bragg M.O.
15	25	Point Reyes,CA	Bodega B.M.O.
16	26&84	Oakland,CA	San Fran.M.O.
17	27	Skyland Road,CA	Santa Cruz M.O.
18	28	Salinas,CA	Monterey .M.O.
19	26	San Luis Obispo	KLU-727
20	25	Santa BarbaraCA	S.Barbara M.O.
21	27&85	San Pedro Hill	Redondo M.O.
22	24&26	Avalon,CA	S.Pedro M.O.
23	84	Santiago PeakCA	Dana Pt.M.O.
24	28&86	San Diego,CA	S.Diego M.O.
25	28	Redding, CA	Redding M.O.
26	26&28	Crystal City,NV	Lk.Tahoe M.O.
27	27&28	Vacaville,CA	Stockton M.O.
28	24	Meadow Lakes,CA	KUF-607
29	26	Fresno,CA	KTD-573
30	28	Bakersfield,CA	KUF-563
31	26	Lake Mead NV-AZ	Lk. Mead M.O.
32	28	Ketchikan,AK	WRN-41
33	28	Sitka,AK	WRN-43
34	28	Petersburg,AK	WRN-42
35	28	Juneau,AK	WRN-40
36	26	Boswell Bay,AK	WSX-77
37	28	Valdez,AK	WAB-901
38	28	Seward,AK	WAB-900
39	26	Homer, AK	WAB-903
40	28	Nikishka,AK	WSX-87
41	26	Kodiak,AK	WSX-78
42	26	Cold Bay,AK	WSX-74
43	28	Unalaska,AK	WAB-902
44	28	Nome,AK	WSX-73
45	27	Honolulu	KGW-423
46	28	Wailuku	KLU-758

FEDERAL GOV'T

Robert B. Grove, Editor

Send all non-military Federal Government frequencies and radio system details to: Robert B. Grove, Route 1-Box 156, Brasstown, NC 28902. Sensitive federal law enforcement frequencies will not be published.

A number of our members have expressed considerable curiosity about the disappearance of many agencies from the airwaves. It seems that transmissions from the FBI, Border Patrol, DEA, Secret Service, and Customs are nowhere nearly so prevalent as they once were. Could it mean that they are becoming more discrete now with the widespread use of scanners? Have they abandoned repeaters unless absolutely necessary? Have they found some super-secret frequency range none of us has heard about yet? Have they switched to spread-spectrum techniques which are unreadable? All of these questions are purely conjectural, of course. Let us know what ideas you may have on the case of the "Mysterious Disappearance of Federal Law Enforcement Transmissions"!

I received a call this week from a concerned member who urges me to remind members that the taping of a transmission and later playback to another party is a violation of section 605 of the Communications Act. Please keep that in mind when the impulse to swap tapes strikes you.

We have heard from more than one source that the switch to digital scrambling by the Secret Service is likely within one or two years. Other agencies are sure to follow. Mark (MI-004) wrote to say that Michigan State Police intelligence operations are switching to Motorola's DVP (Digital Voice Protection).

Many thanks to the members who have sent in lists of Federal frequencies for our inclusion this month.

From JAN (FL-010) and ROBERT (FL-012) South Florida US Navy frequencies active during the "invasion" of Guantanamo Bay, Cuba:

140.87	Boca Chica and Key West
140.715	" "
140.815	" "
141.00	Miami

From MIKE (ID-001)

164.100	VA Hospital police, Boise
168.000	VA Hospital paging, Boise
417.200	GSA Federal Protective Service, Voise

From CHUCK (MD-004) National Park Service, Washington, DC

ch.1	166.725 (rptr out) secondary command post for special events
ch.2	166.925 (rptr out) primary channel
ch.3	167.075 simplex; Kennedy Center
ch.4	166.850 simplex; car to car

From BOB (WA-007)

164.100	VA Hospital, Portland, OR
164.125	US Forest Service, Olympia, WA
411.350	Forest Service, Mt. Hood Nat'l Forest (rptr out)
415.250	Forest Service, Gifford Pinchot Nat'l Forest (rptr out)

From TONY (NJ-005)

164.175	VA paging, East Orange, NJ
164.700	VA hospital paging, New York City
164.9875	US Postal Service truck ops, NJ (simplex)

Federal Gov't (continued)

164.475	National Park Service rptr out, NJ (input 165.4125)
164.425	Dept. Interior Park Service (nationwide)
164.600	Input to US Marshal repeater (output 163.200)
165.9875	unknown (simplex)
166.325	Park Service, Gateway repeater
166.375	US Postal Service truck ops, simplex)
166.175	FAA repeater output
166.675	VA Hospital security, Bronx
166.925	Park Service repeater input (output 166.325)
166.100	UN Security, simplex
169.300	FAA multiplex VOR control (nationwide)
169.4125	Unknown
169.1125	US Postal Service, Long Island
169.850	US Postal Service Inspectors repeater output, New York City
169.000	US Postal Service Inspectors simplex
169.600	US Postal Service Inspectors simplex (ch.3) New York City
417.825	US Park Police point-to-point link for 166.325
417.200	GSA Protective Service repeater
413.875	GSA paging
407.850	Tone paging, unknown

LATEST ON IRAC MICROFICHE!

I have finally received a formal reply from IRAC to my query regarding the availability of a complete government frequency file run on microfiche, hard copy, and data tape only.

I asked for both piece-meal frequency blocks (30-50, 136-144, 148-150.8, 162-174, etc.) and a continuous file 2-420 MHz. Oddly enough, the continuous run was less expensive!

But here's the problem. I have strong reservations regarding the wholesale distribution of the list. True, it is unclassified, but the information is still very revealing. To limit the distribution to only a few would make the cost inordinately high. I have SASE's from those of you who expressed an early interest in this project, and I will be in touch on an individual basis once I resolve this enigma in my own mind. Any suggestions from our members?

★ MILITARY ★

Robert B. Grove, Editor

Send all ARMY, NAVY, MARINE and AIR FORCE (including military aircraft) frequencies and radio system details to: Robert B. Grove, Route 1-Box 156, Brasstown, NC 28902. Sensitive military frequencies will not be published.

Low band listeners have been getting a real treat lately from the high sunspot count. Skip has been providing worldwide reception. The inordinately high level of activity is a mixed blessing; sometimes we are pleased at the variety of listening fare, sometimes we are discouraged by the amount of interference.

Just this morning I listened to European and South American TV audio, military tactical operations, a National Guard bivouac, and many unidentifiables. Great sport!

I am presently experimenting with a pair of Channel Master's "Monitennas". Hopefully, they will become a directional beam for a wide range of frequencies. I am a great fan of trying to get something for nothing! Incidentally, the Monitenna is one heck of a good low/high/UHF antenna for scanners.

Military (continued)

From MIKE (ID-001)

34.60	Army National Guard, Boise
38.50	Army National Guard, Boise
41.50	Army National Guard Helicopters, Boise
49.70	Gowen Field Control, Boise
148.950	US Navy Mars repeater output, Boise
164.500	US Air Force Gowen Field Security, Boise
165.1375	US Air Force Gowen Field Maintenance, Boise

Nice list; thanks, Mike!

From CHUCK (MD-004)

148.43	U.S. Naval Academy and Naval Station police, fire, security, USMC Guard (ch.1)
148.35	US Naval Academy public works and hospital (ch.2)
163.5625	US Army MP, Ft. Meade, MD
407.300	US Army Ft. Meade, MD fire department

Good catch, Chuck....thanks!

From BOB (WA-007)

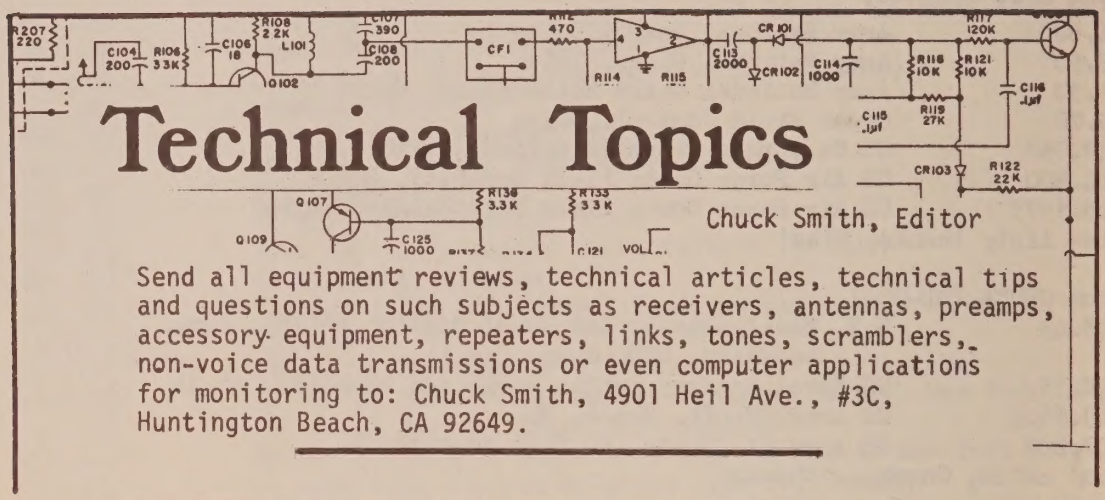
163.490	Air National Guard base security (nationwide)
165.0175	Air National Guard aircraft maintenance

Bob is looking for other lists of Government listings for Washington and Oregon.

Members continuously ask for methods to monitor the 225-400 MHz military aeronautical band. While the URR-13 and URR-35 shipboard receivers are very popular, there are other ways to go about it. If you are handy with electronics, request the latest catalog from Fair Radio Sales Co., PO Box 1105, Lima, OH 45802. This surplus house is a bonanza of electronic goodies. I have just ordered their AM-914/GRC 225-400 MHz converter. It was originally designed to work with a 30 MHz mainframe receiver, but that output frequency makes it a natural to use with a general coverage shortwave or ham receiver for AM reception, and with a low band scanner for FLEETSATCOM FM reception as well! It is a tube-type converter, but I am planning to write an article on solid state conversion of the unit if it is feasible. Best of all, the little converter costs only $34.95!

Several members have wondered why the new edition of Gilfer's CONFIDENTIAL FREQUENCY LIST didn't contain the VHF/UHF listings as were in the previous edition. As the author of the previous volumes 2 and 3, I would like to explain why Perry Ferrell (President of Gilfer) did not include these higher frequencies. Gilfer Associates is exclusively a shortwave listener hobby supplier, and Perry wishes to maintain that profile. His rendition of CFL-4 is limited to 4-24 MHz, and is in a directory format by ascending frequency. I find it easy to use, and refer to my copy often. Others wish that Perry had stuck to the earlier format of agency classification which was in my previous two editions. It is largely a matter of personal preference. Personally, I feel that it was a mistake not to include the higher frequencies because of the astronomical increases in scanner sales. That philosophical difference was one strong reason why Perry and I did not get together on this edition.

See you next month!



Technical Topics

Chuck Smith, Editor

Send all equipment reviews, technical articles, technical tips and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions or even computer applications for monitoring to: Chuck Smith, 4901 Heil Ave., #3C, Huntington Beach, CA 92649.

As the 1979 Christmas season fast approaches, it seems to me that the RCMA may well be entering into a crisis situation. Now to those of you who are relatively new members, this may not make a lot of sense, so please allow me to explain.

I had this column completely done, pasted up, and ready to submit to the Editor for publication when I received a telephone call from Iden. One of the subjects we discussed was this Newsletter, from its two or three page issues back in 1975 to the grand thing it has become today. Not one of us who were at that time the founding members of the RCMA dreamed that we would today be enjoying the truly international notariety that we can boast of. I am very proud of the great strides that we as an organization have made in the years since then, and there is no doubt in my mind that our phenomenal growth was due in great part to the sacrifices and hardships which were endured by the RCMA's early leadership. I do not say these things to pat myself on the back; because, although I was one of the first members, I have never served as an officer of this club. As my regular readers know too well, I gripe enough as it is just editing this modest column once a month. Other members have served the RCMA, and served it well, but it is not fair to expect those who have been giving of their time and talent to keep giving and giving without relief. It is at this point the RCMA has arrived.

Perhaps it is premature for me to write an editorial such as this, but I have been thinking a lot since I last talked to Iden, and I think it is pretty important that you, the general membership, be aware of the options which are available to the RCMA in the very near future. Now, you ask, what the hell am I talking about?? The Newsletter itself, that's what. For the past couple of months Iden has been asking for some sort of relief from the incredible task of Newsletter Editor, first calmly, and now with greater and greater urgency. The job has been his ever since Don Jones left this area and moved to Santa Barbara, and I think it's perfectly accurate to say that he has done more for the Newsletter in these short months than anyone before him in the entire history of this organization. Not only that, but I think that we, and that includes myself, have been committing the unforgivable sin of taking his dedication and service for granted. Well, now he is asking for some sort of assistance, and instead of being overwhelmed with offers as he should be, he is on the verge of tossing up the ball and seeing who wants to run with it. The other alternatives are to have the Newsletter taken over and run for a profit, making it in effect a magazine, complete with advertisements and all the various and sundry crap that goes into such a publication. Is that what you want? For myself, at least, the answer is a resounding NO! One of the reasons that the RCMA has been able to take such an objective position on the scanning hobby has been our total freedom from dependance on revenue from commercial advertisements. Do you think a scanner manufacturer would be willing to place paid advertisements in a magazine which is liable to criticize their latest product as a worthless piece of

junk? Not likely, and this is precisely what has happened to the commercial stereo "slick" magazines. If the RCMA were to go in this direction, our entire editorial policy would be reduced to being a prostitute to the people who were paying for the ads. Doesn't sound too attractive, does it? Well, I can see the day coming when that is exactly what is going to happen unless someone (or a couple of someones) out there is willing to get off their ass and help produce this Newsletter instead of being content just to read it.

For those of you who may think that I was asked to do this bit in my column, let me assure you that Iden knew nothing of it, and in fact, I made my submission one day later than it already was just to add these remarks. While to some of you I may sound a little extreme, it's just because I have a big emotional investment in this organization, and I don't like the idea of it going down the tubes because of apathy in the membership. Enough said.

TECHNICAL COMMITTEE REVISITED

This is an "official" announcement of sorts, since this Newsletter goes to not only the membership at large, but also to the mailrooms of the scanner manufacturers themselves. A long time ago there was some discussion of having a "Technical Committee" as part of the RCMA's service to its members. The job of the committee would be to contact manufacturers of scanners and other related equipment, request the loan of a typical model and then perform technical tests on this equipment for the purpose of publishing an objective review. This program, sadly enough, suffered from collosal mismanagement, which eventually killed it off. Unfortunate, since the idea was itself an excellent one.

Well, the idea of a "Technical Committee" has been invested with new life. BRYAN (CA-OR-097) has been authorized by the Membership Board, to reorganize this phase of the RCMA and get it working again, or should I say, get it working at last. He will, at some point in the near future, be making contact with all of the well-known manufacturers of scanning receivers and related products, in order to solicit the loan of a typical sample of their latest products for test and subsequent review. It will be his responsibility to choose the members who will serve on this committee and to coordinate their various activities. He will then submit test data on the products to this column, which I will then edit, compose, and publish. In this way it is hoped that the Technical Committee will provide a source of reliable and unbiased equipment reviews on the latest products available. I would like to encourage those in the manufacturer's organizations who are responsible for such programs to cooperate as much as possible with BRYAN so that he might get this program off the ground just as quickly as possible.

SQUELCH YOUR SQUELCH PROBLEMS

Over the past few months, I have received a couple of different questions about squelch circuits, so I thought that perhaps I could kill a few birds with one stone in a general article about the type of squelch circuit recently used in the new scanning receivers, ala BC-210, BC-250, and BC-220.

A while back, CLYDE (CA-LA-90) called me with a question about the tone bypass squelch circuit in his BC-210. In my own inimitable fashion, I managed to forget the question. Well, I recently received a letter which politely reminded me, so along with an apology, I'll try to supply the answer. Part of the answer will come with a general explanation of how these particular squelch circuits work.

The squelch circuit in the BC-210, 220, or 250 is actually three different types of squelch circuits combined for maximum effectiveness. These are (1) a noise squelch, (2) a frequency detector, and (3) a tone-bypass

squelch. The noise squelch is the most familiar, and works on the principle that the more signal we have on the frequency, the less noise we will have. This is due to the inherent operation of the FM limiter (which I discussed in some detail last month) and is known as "quieting". The high-frequency noise, the "hiss" if you will, is picked off from the audio circuitry, passed through a high-pass filter, and then rectified and filtered to produce a negative DC voltage. When this DC voltage is applied to the audio gate, it cuts off the audio and prevents you from hearing the interstation noise. When a carrier comes on the frequency, however, the amount of this noise decreases until the DC voltage decreases enough for the audio gate to open and allow the station to be heard. This type of squelch, unfortunately, is at the mercy of the IF selectivity of the radio; for example, if the IF selectivity of the radio is poor enough so that a signal 25 KHz away from the desired one will cause the receiver to quiet, the squelch would then open, even though there was no signal on the desired frequency. Not too good, huh?? The answer to this problem would be to substitute a better ceramic filter in the IF circuit, but since this costs money, there's not much chance of that. So....enter our squelch circuit number two, the frequency detector. This circuit uses a pair of amplifiers set up as comparators; that is, an electronic circuit that can compare one voltage to another and act accordingly. Now the output of the FM discriminator is a DC voltage. Ideally, when a signal is right on frequency the DC voltage is zero, when the signal is below the center frequency, the voltage may be positive in value and when the signal is above the center frequency, it will be opposite in polarity. The comparators are set up so that unless the frequency falls within a certain "window", say plus or minus 15 KHz from center, the squelch is biased off. If the frequency is within this window, the frequency detector will allow the audio gate to be controlled by the noise squelch in a normal manner, but if the frequency is too far off, the frequency detector will take over and prevent the squelch from opening up and allowing you to hear bogus signals. Now the last type of squelch is the tone bypass. When radio telephone channels are empty, they are often held open with a 2 KHz audio tone. Of course, when scanning through these channels, the open carrier will of course hold your scanner and prevent it from progressing any further. The tone-bypass circuit detects this 2 KHz tone and uses it to produce a voltage which tends to close the squelch audio gate. When your scanner comes upon such a signal and there is a 2 KHz tone present, this tone will cause the scanner to proceed on with only a very brief stop. I have heard a lot of complaints from members who have had scanners which were very sensitive in this regard, and would often proceed on even though the only traffic on the channel was normal speech. Since normal speech will contain slight bursts of signal around this 2 KHz frequency, the circuit must be adjusted so that it is not overly sensitive. If you do not wish to utilize this circuit, as CLYDE does not, in the BC-210 you can eliminate this feature by removing resistor R39, a 33K (orange-orange-orange). If you wish, the same effect can be had by removing C78, a .001 uF capacitor. Adjustment of this circuit is made by the trimmer resistor R73, and if you do not wish to alter your receiver by removing components, turning this potentiometer to its least sensitive position will serve the purpose quite well.

BC-210/250 POTPOURRI

CHRIS (CA-LA-175) writes: "I am a TV news assignment editor who spends most of the day monitoring several scanners. Wondering if you have any suggestions to solving some technical problems we have encountered.
1. Our BC-250's in our three camera cars on occasion will lose their memory. The units are wired to the accessory circuit in the cars but will sometimes lose their memory when the car is started. Bearcat says the memory will give way when the DC voltage falls below 9 volts but being wired to the accessory

circuit the line does not become hot until after the starter has started the car. Then why the memory loss? I understand Bearcat recommends turning the units on and off in mobile use but that is not practical for us. I have considered a time delay device which would start the scanner 10 seconds after the ignition was on. Think it might solve the problem? Any suggestions?
2. Any way of safely increasing the LED display brightness? (Display is almost invisible outdoors)
3. I have a BC-210 in my own car and get a terrible amount of ham radio interference when driving to work. It only happens during rush hour traffic. Unit defective? Would a different antenna or a filter solve the problem?

Well, CHRIS, to answer your last question first, there is nothing wrong with your BC-210. While driving to work in rush hour traffic, there are many ham radio operators who spend their time chatting back and forth via the two mefer repeaters in the area. In all probability, the ham radio signals you hear interfering with your scanner may be coming from a vehicle only a few hundred feet away from you. No scanner is going to fare very well when it is exposed to intense RF fields like that. Other than going to work at a different hour or staying away from the freeways, I'm afraid there's no much either of us can do about this one.

A quick way of increasing the apparent brightness of the LED display would be to construct a small cardboard shade and arrange it so that it can shield the display from direct light. There is a resistor network in the radio which limits the current to the display (and hence its brightness) but in the interest of long-term reliability I would not seriously recommend tampering with it.

The first question is the toughest of all. I think the radio is getting its memory scrambled by the transients which are delivered to it when the car is being started and immediately thereafter. Your idea about the 10-second delay sounds feasible and should solve the problem, however; there is no better solution than connecting the radio directly to the battery and then using the power switch to turn it off and on. The more fuses and switches you place between the radio and the battery the more likely it is to receive a pulse of voltage that may "confuse" its memory.

ANTENNA TRANSPLANTS??

JOHN (MA-005) asks: "Here is another problem that I have that may be of interest to others. I am not satisfied with the operation of tri-band antennas for scanners with only one antenna input. At present I have a Ringo AR-2 and a tri-band "Tee'd" at the rear of the receiver. I assume this is not the best for quality reception?? I would like to be able to hook up an antenna for each band (30-50, 150-174, & 450-512) to my scanner. From experience in switching antennas around it does make a substantial difference. Is it possible to do this with some sort of splitter or combiner or can I get away with bringing three different antenna leads into one at the rear of the radio? I see no other solution short of buying a scanner for each band."

Your assumption is correct, JOHN. Connecting antennas together in such a manner is a giant NO-NO. Doing so will upset impedances in such a way so as to render the combination quite unpredictable, and probably quite useless as well. It would have been better if the scanner manufacturer had provided antenna inputs for each band, as you would like to have, but lacking this, the easiest way to combine several separate antennas onto a common feedline would be some sort of combiner, installed up at the antenna array. Broadband combiners can be had from several companies involved in commercial radio endeavors, but all have the disadvantage of causing a small amount of signal loss, on the order of 2 or 3 dB. This, fortunately, is not a lot when we are

dealing with the relatively strong signals in public service work, but in some cases can prove to be too much when digging for those really weak ones. The combiner has the advantages of allowing you to use one downlead, saving a bit of money, and not tearing into the radio, saving you your warranty. I would also suggest writing to the manufacturer and making your desires known for multiple antenna inputs.

RECORDING FROM THE BC-250

MICHAEL (IL-044) writes that he is picking up hum when trying to record from the BC-250. This problem has been briefly gone over in the past but let me touch briefly on it again. When recording from the BC-250 and utilizing the auxiliary output from the scanner, one must take care to isolate the grounds from the scanner to the tape recorder. If we allow these grounds to be common, we will form a ground loop, allowing large circulating currents to flow, which will induce hum into the received audio. This problem can be cleared up by placing coupling capacitors (of about 0.1 uF in value) is series with both the ground and hot lead coming from the tape recorder jack. A small matching transformer can also be used to isolate the two units.

OUT-OF-BAND LETDOWN

From the Radio Research Group, Statesboro, Georgia, comes the following information of interest:

"In reference to your RCMA column Technical Topics, perhaps the follow-inf information may be of interest to your readers.

The Bearcat 250 has an IF frequency of 10.85 MHz in units of serial numbers below 100,000 and an IF of 10.8 MHz in units above 100,000 serial number. Thus the proper addition for "image programming" is 21.7 in older units and 21.6 in the newer ones.

The image rejection from the aircraft band is so poor in the BC-250 that users are sometimes bothered by an aircraft image that falls on a local service frequency. If the 250 is in warranty the factory will install an "aircraft band trap" at no charge. The trap consists of a small disc capacitor and a slug tuned coil. If you don't want to return the 250 to Electra they will usually furnish the parts at no charge so that you can install the trap locally. The slug tuned coil can either be set for the middle of the aircraft band or it can be used to notch a particularly offending signal.

As you may know, it is possible to use "search" to receive frequencies outside the normal range of the 250. However, the apparent frequencies may not be receivable. In one specimen unit we have tried, the VCO quits at 145.22. Therefore, the extended range is only 145.22 to 146.00 and not the full two-meter amateur band as might be expected.

The Electra factory service department indicates that they expect the VCO to quit at about 2 MHz outside the normal ranges on most of the bands when usig the search mode to go outside the normal programming of the scanner."

Many thanks to The Radio Research Group for their input, and I trust this information will be enlightening to some of you.

LOUDER!! I CAN'T HEAR YOU!!

A new member, who wishes to remain anonymous, wants to know about the measures one can take if the volume of his or her scanner is inadequate for mobile use. Well, I guess the easiest solution of all is the one which the same member suggested himself in the letter: obtain a small, DC powered

amplifier, feed its input with the output from the recorder jack (since the audio level here is constant) and then drive your speaker with the small amplifier's output. Choose an amplifier with an output of about 10 watts, a horn speaker to match, and you should be in business. Amplifiers of this type can be found at Radio Shack and other such places for quite low prices. Make sure the cable running from the scanner to the input of the amplifier is a shielded one to minimize pickup of electrical interference from the ignition system.

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We begin this Canadian edition basically at the end! If that statement is puzzling everyone perhaps I should explain. This newsletter section was complete and ready to mail when real life disaster struck the western fringes of Toronto. As a result I have decided to rewrite at least one page over this November 11 weekend and give members an on-the-spot report of a disaster as it is happening.
Just before midnight on Saturday November 10 a freight train

with fifty cars including many tankers each carrying 90 tons of butane and propane crashed in a fiery explosion in the city of Mississauga just 5 miles west of Toronto. The ground vibration could be felt 30 miles away and the intense white fire was reported visible in Buffalo, N.Y. about 75 miles away. Within minutes the scanners came alive with 10/33s. The first suspicion was that a plane had crashed from Toronto International just a few miles away. The accident occurred in Peel Regional and within a short time the area was blanketed with all types of emergency vehicles. As the enormity of the disaster became more apparent a massive crisis mobilization took place. All fire departments from Toronto boroughs and surrounding communities contributed vehicles. The greatest initial problem was in defining the contents of unexploded tank cars. By 3am Sunday the worst possible fears were realized; in the middle of intact tank cars was an overturned unit containing 10000 gallons of highly toxic chlorine, noticeably leaking. Because the chlorine when burned becomes fatal phosgene gas (as used in WW I) a full scale evacuation was ordered. Initially this was for a five mile area around the site but was later twice extended until an area about 15 miles wide and 7 to 12 miles deep was totally cleared of all non-emergency personnel.Police, fire and ambulance set up emergency command posts near the scene. However, because the heat and risk of explosions everyone was kept back 2000 ft from the actual fire. For 240,000 people it meant sleeping in various emergency shelters set up in schools.PEEL REGIONAL POLICE have done a superb job as have all emergency services. Initial control was on ch.5, 142.800, a seldom used frequency while otherregular channels 142.605 and 142.455 were used for back-up. The main fire frequency in use appeared to be 154.950, Mississauga City FD using XJK 27. As two hospitals had to be evacuated the ambulance situation was most critical - some came from as far away as Kingston, about 120 miles away. Just about every possible channel was in use. The 150.100 provincial band was in common use along with Peel on149.470 and Toronto on 151.820, 152.375 and 154.920. Even as this is being typed the AM radio is carrying warnings of further evacuations if the wind shifts and asking all off duty police and ambulance personnel to report in for emergency duty. The seriousness of the situation is even more highlighted by the presence of Canada's famous Mounties (RCMP) who, like other forces here are much criticized and seldom if ever recognized for the great job they do. Because they may at times involve national security RCMP frequencies will not be published here. If RCMA ever decides to nominate good citizens for extreme bravery I suggest Larry Kruppa, driver of the train is particular deserving. Apparently after the accident Larry descended from his engine and ran back into the holocaust past the first 27 tank cars which were still on rail to uncouple them and then pull the front section forward, avoiding what could have been a far greater disaster.

To summarize, a disaster has occurred with no known loss of life, thanks to the train crew and all the emergency services involved. From a scanner enthusiast's point of view there are several lessons to be learned from this.Neither police nor fire departments seemed to use the common frequencies available to them. Communications generally involved going through individual despatchers who then used the landline. Ambulances generally fared better, probably because their I/S frequency is commonly used known to their personnel. However, hospitals here are not generally radio equipped; messages between ambulances and the hospitals must generally be routed by LL via a despatcher.

CANADA (continued)

FREQUENCIES---CANADA

From: Robert (CAN 009)

PD	Calgary, Alberta	Dispatch, North Side		1	R	462.000
PD	Calgary, Alberta	Dispatch, North Side		2	R	462.275
PD	Calgary, Alberta	Dispatch, South Side		3	R	462.575
PD	Calgary, Alberta	Dispatch, South Side		4	R	462.975
PD	Calgary, Alberta	Records / Tactical		5	R	462.125
PD	Calgary, Alberta	Records / Tactical		6	R	462.375
PD	Calgary, Alberta	Dispatch, South Side		7	R	462.650
PD	Calgary, Alberta	Special Use		8	R	462.875
FD	Calgary, Alberta	Dispatch,Primary	XJH250	A	S	153.830
FD	Calgary, Alberta	Secondary	XJH 55	B	S	154.100
RCMP	Calgary, Alberta	Primary Dispatch	XJA 41		R	155.580
RCMP	Calgary, Alberta	Alternate	XJA 41		R	148.915
(((((These RCMP frequencies are for))))						
((((local general usage and are unclassified))))						
AMB	Calgary, Alberta	Paramedic dispatch		F4	S	154.370
AMB	Calgary,Alberta	Telemetry relay		F1	R	154.740
NEWS	Calgary, Alberta	CFCN TV / Radio			S	172.830
NEWS	Calgary, Alberta	CFAC TV / Radio			S	153.230
NEWS	Calgary, Alberta	Calgary Herald			S	158.580
PWR	Calgary, Alberta	Rural trouble			R	171.450
GAS	Calgary, Alberta	Can. West Nat. Gas			S	153.920
BUS	Calgary, Alberta	Calgary Transit		2	R	460.175

Thanks Bob, that's a nice cross section of frequencies. Those UHF PD channels do seem very close to the U.S.A. class 'A' CB!

From: Bruce (CAN ---)

PD	Belleville, Ontario				R	142.035
PD	London, Ontario		XJF 25	4	R	142.035
PD	Kingston, Ontario				R	142.065
PD	Lindsay, Ontario				R	142.095
PD	London, Ontario		XJF 25	2	R	142.335
PD	Peterborough, Ontario (OPC 12T)		XJF 38	3	R	142.410
PD	Peterborough, Ontario		XJF 38	2	R	142.485
LG	Ontario Dept. of Hwys. Snowplows				S	143.850
LG	Ontario Dept. of Hwys. Snowplows	Bancroft	ch4		S	143.865
LG	Ontario Dept. of Hwys. Snowplows				S	143.880
LG	Ontario Dept. of Hwys. Snowplows	Pt. Hope	ch6		S	143.940
LG	Ontario Dept. of Hwys. Snowplows				S	143.970

Thanks to Bruce for sharing his VERY large collection with us. I'll bring more of Bruce's listings next month.
A reminder to readers-input frequencies for the 142 band is 4.02mHz below the output.

Freebies. Yes, FREEBIES !!!
O.K. Now that I have your attention let me put a question to all our members, U.S, Canada or overseas. Most of us are getting a free (or subsidized) ride. RCMA needs the help and participation of all members to make this a truly good, interesting and active club. Unfortunately like most such clubs 90% of the work is done VOLUNTARILY by 10% of the members. To fellow Canadians I ask only that you send as much data as possible. Indicate when possible call signs and frequencies used. Remember also that most agencies have a different call sign for <u>each</u> frequency but in practice tend to use just one.
Canada's Department of Communications has many free publications available to anyone who cares to write. As far as I am

CANADA (continued)

aware these are available also to U.S. residents. My own suggestion would be that anyone interested write first to request a free catalogue of D.O.C. publications and any specification sheets. The address is
Government of Canada - Department of Communications
300 Slater Street, Ottawa, Ontario, Canada, K1A 0C8.
Also free (one per person!) from the same address is a full colour chart of "frequency allocations for Canada from 3kHz to 300 GHz". Ask for "The Radio Spectrum Chart". This may be similar to charts being sold in the U.S. at present. Now I bet you thought this was all a joke. Seriously though, the last time I ordered a full set of specs and docs the parcel of literature from Ottawa weighed just about 6 lbs and came first class all the way!
The accident news in Mississauga is now more serious. An even more extensive evacuation has been ordered. This newsletter may not now make the deadline as over 60% of all Canada's mail is moved through the Mississauga Postal Terminal. As I sit here typing this the scanners provide a background of human drama and tragedy unheard of in North America.
To members everywhere I wish you a very HAPPY and PEACEFUL CHRISTMAS and successful New Year. May you all find a little Bearcat or beautiful big Regency under the tree.
A Quebecois en francais, Joyeux Noel et Bien Annee pour 1980 pour vous. (Pardonnez mon francais; je suis irlandais!)

Flash to all members. Bearcat have advised that they will have special Canadian models to cover 138-144 Mhz early in the new year. No news on 406-420 Mhz.

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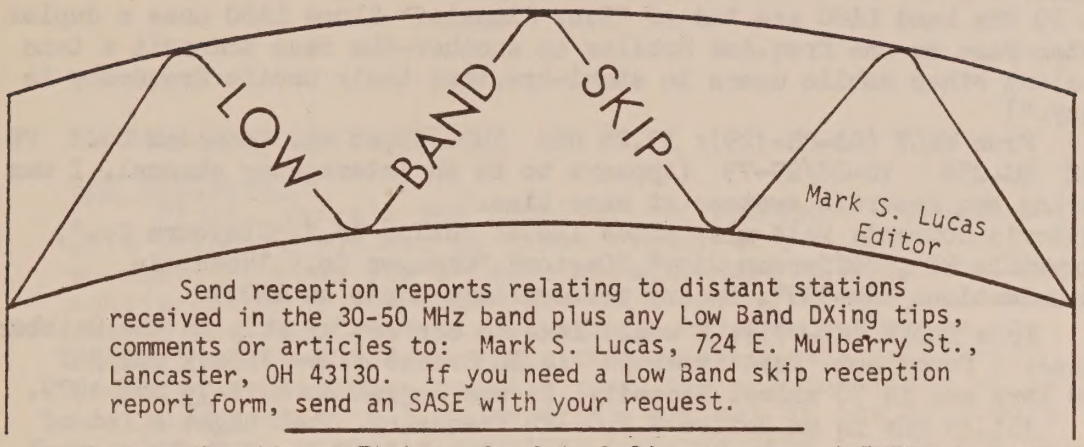


Send reception reports relating to distant stations received in the 30-50 MHz band plus any Low Band DXing tips, comments or articles to: Mark S. Lucas, 724 E. Mulberry St., Lancaster, OH 43130. If you need a Low Band skip reception report form, send an SASE with your request.

Seasons Greetings! It is so hard to believe we are at THIS time of year. My work is cut out for me this time of the year,as is any retailer. So,here we go with a shopping cart of member loggings....

From BILL (CA-LA-009): 42.42 MHz KUA-772 "Indianapolis" State PD
BASE BC-220 10-27-79 1700 GMT Indianapolis,IN. 2000 Miles
42.42 MHz KSE-706 "Bloomington" State PD
BASE BC-220 10-27-79 1701 GMT Bloomington,IN. 2000 Miles
42.42 MHz No Callsign "Chattanooga" State PD
BASE BC-210 10-27-79 1702 GMT Chattanooga,TENN. 2000 Miles
42.42 MHz No Callsign "Ft. Hawkins" Police
BASE BC-220 10-27-79 1715 GMT (ANY IDEA OF LOCATION FRIENDS???)
48.53 MHz KUB-502 NO ID Service Unknown
BASE BC-220 10-27-79 1845 GMT Rothem County,NY 3000 Miles
(Station was shooting skip with a California station)
42.68 MHz No Call or ID Police
BASE BC-220 10-27-79 (ANY MEMBER WHO CAN HELP?! Gave mention of "City of Jeeddo (sic), Birchfield TWP)
42.74 MHz No Call "Mocosta Central" Police
BASE BC-220 10-27-79 1900 GMT (NEED LOCATION?)
31.10 MHz KUV-588/608 "Gainesville" Game Warden?
BASE/MOBILE BC-220 10-27-79 1720-2000 GMT Gainesville,FLA. 3000 Miles
33.18 MHz KAC-969 NO ID OR SERVICE
BASE BC-220 10-27-79 1745 GMT (ANY IDEA OF LOCATION? Gave 316 area code with phone number. Is this a Kansas area?)
(EDITOR'S NOTE: The rest of Bill's logging will be included next month. Again, PLEASE refrain from using "Zulu" or GMT time! How do I or the new members to our hobby know if it is YOUR local time or THEIR local time or??)

From JOHN (IL-012): 39.82 MHz HOF-22? Unknown in Spanish
BASE/MOBILE BC-101 10-20-79 1110 CDT Panama (?) 2800 Miles
42.50 MHz No Callsign or ID Road Construction
BASE/MOBILE BC-101 10-27-79 1020 CDT Bay/St. Louis,MO. area 825 Miles
42.82 MHz KVG-919 "Oregon HP" State PD
BASE/MOBILE BC-250 10-27-79 1200 CDT Gardener,Ore. 2000 Miles
42.94 MHz KDQ-231 "Oregon HP" State PD
BASE/MOBILE BC-250 10-27-79 1248 CDT Philomath,Ore. 2000 Miles
39.50 MHz KZV-423 "Rancho Sante Fe" Service?
BASE/MOBILE BC-101 10-27-79 1358 CDT Rancho Sante Fe,CA. 1800 Miles
(Though listed as a Fire Protection District,traffic did not fit category)

From BARRY (FL-020): 39.14 MHz KMA-??? No ID Sheriff
BASE Regency Touch 1000-1500 EST 10-20-79 LASO 3200 Miles

From DAVID (AL-001): 35.14 MHz "Fullerton" NO Call Service?
BASE BC-210 10-27-79 1827 CDT (ANY IDEAS?)
35.98 MHz KQA-528 NO ID Towtrucks (?)
BASE BC-210 10-27-79 1830 CDT (Traffic referring to Twotrucks)

From Donald (CO-002): 33.74 MHz KTH-482 NO ID (?) FD
BASE/MOBILE Regency Touch 10-27-79 1730 MST Navajo County,Pinetop,Ariz.

LOW BAND SKIP (CONTINUED)

From JOHN (PA-019): 42.88 MHz No Call or ID CHP Base BC-250 10-18-79 NO TIME LISTED California Highway Patrol (Editor's Note: John the so-called Telephone "Busy Signal" you heard on the 39 MHz band LASO are indeed "Busy Signals!" Since LASO uses a duplex system-Base on one freq.and Mobiles on another-the Base transmit a tone to alert other mobile users to stand-bye,that their mobile frequency is "busy.")

From WALT (CA-OR-129): 37.26 MHz KBG-333,et al. "Hancock Co." PD BASE BC-250 10-28/29-79 (Appears to be an InterAgency channel. I was hearing two separate systems at same time.)
(Editor's Comment: Walt also notes IDs of "Union Co.","Clayburn Co.", "Maryville PD","Jefferson City","Dayton","Granger Co.","Mountain Communications KGB-397". Do any members have hints on WHO?)

From EDDIE (NY-091): I would like to correct my skip in the October issue. I found out "East Freehold" is in Freehold,New Jersey and NOT New York and is 70 miles. Secondly, it was logged on 6-13-78 not 1979.

154.43 MHz is an active N.Y.C. FD frequency. That night a lot of N.Y.C. firefighters were confused about Freehold N.J. on their channel.

From BILL (CA-LA-009): If you've watched "CHIPS" you've undoubtedly seen or heard the squad car known as "15-7 DAVID." YES, there IS such a vehicle! It works out of "LA Central." It works the "Grey" Channel.

I guess I goofed a couple months ago when I failed to mention the complete address of Radio Research Group. It is: P.O. BOX 7999, Statesboro,Georgia 30458. My thanks to Eddie (NY-091) for bringing this to my attention.

Next, I am now asking for a small favor from all of you. Could you PLEASE limit the amount of contributions to between four and six pages. I realize the amount and quantity can be overwhelming and cause you to be overenthusiastic,but the job of an editor is just that! I am forced to overedit and leave out what you might consider to be THE best logging by you. I can handle four pages quite confortably by anyone, but 24 is a bit much! By the time I finish using them someone else may complain one person is "stealing the show" or the loggings get so old they are starting to get a cover of mold on them. So, keep them up to date, and limit your enthusiasm to no more than six pages. Remember, my deadline is set for the 10th of the month.

I have had lots of fun being your Low Band Skip editor for 1979,and will continue to do so in the 80's as long as you support this column and all of the RCMA organization.

And hats off to Iden Rogers, the RCMA "Guardian Angel" who lifted the organization from an almost certain fate and boosted it to a very highly respected radio club-NATIONWIDE. Whatever or whomever takes over the helm of the club I am sure you all will support him or her as you have supported Iden. Any club is only as good as the input you give it! SO,LET'S ALL SUPPORT THE RCMA!

May all of you have a very Merry Christmas and a Happy 1980. May we continue having the support of the Law Enforcement community and that we can work with them for mutual understanding.

73s.

Mark

VHF DXing
(or, Exciting new listening on your scanner!)

In most areas of the country most monitorists have at least one VHF low-band channel in their scanner. Perhaps they've wondered what the "interfering", unfamiliar stations on their local channels are. We are nearing the peak of the eleven year sunspot cycle, with worldwide activity daily. What does this all mean? How do you get started?

The Equipment

First, there's the receiver. If you have a programable scanner, you can go first class. If you have a crystal scanner, you can buy a few strategic crystals for the most active channels and hear just as much, although you can't search for the "hot" DX. A tunable receiver, such as the Hammarland SP-600JX, has the disadvantages of relatively mediocre sensitivity and the need for a combination of skill and guesswork to get an accurate readout of the frequency. A multi-band portable receiver has the same drawbacks, but is a good accessory to a scanner for the reception of wideband signals, as explained later. You probably already have the receiver. Let's move on.

The antenna is the key to your success. If you don't have something up there to "catch the signals", you won't hear much at all. It won't necessarily strain your wallet either. Most public service band stations use vertical polarization, a vertical antenna, in other words. Once a signal is reflected by the atmosphere, or "skipped", it loses it's original polarity. But you'll still find that most skip signals are received better with a vertical antenna. Your best (and least expensive) choice is to go to your neighborhood CB shop and buy their cheapest ¼-wave ground plane antenna. This will set you back as little as eight bucks. The Radio Shack 21-901 is typical, although it costs $17.95. You can probably do better. When you get it home, get a hacksaw and cut the radiator (the vertical element) to about 6'6". Cut the radials to about 6'10". You can get by with RG-58 coax, but keep it to 50' or less.

If you don't want to tie up valuable "mast space" with a single band antenna your second best choice is a dual-band antenna, such as the Antenna Specialist MON-8. It still works very well on low-band plus gives good performance on VHF hi-band for non-DX uses, giving you a little more versatility. Another alternative is the tri-band antenna. Any multi-band antenna is always a compromise, but you'll find most tri-bands will work well on low-band. A beam antenna is really for the "advanced" DXer. It's main advantage isn't gain, but directivity, the ability to aim toward the desired station, nulling out undesired, co-channel stations. The rock bottom-priced antenna is the long wire, but it's use is a little more specialized. That long-haul late afternoon foreign DX is usually horizontally polarized. A tuned long-wire is just what you need to pull in that Japanese station. A long-wire about 18 or 30' long with as short of a lead-in as possible will do, aimed broadside to the area you are DXing. A dipole is better, center-fed with coaxial cable. Ideal lengths are 12' (6' each side of the feedpoint) or 36', 18' each side. Liberally seal the coax at the feedpoint with RTV or Silicone Seal to keep the rain out of the cable.

If you put up a long-wire in addition to a vertical antenna, another handy accessory is a coaxial switch.There's always loss through anything you put in a coax line, but you'll find the ability to switch antenna polarity extremely valuable. A CB-type switch will do, or make one, with a little metal box, a switch, two connectors and a length of cable with a plug to fit your scanner. Now you're set to go.

What we're trying to hear

During the winter months we are blessed with (and the public service agencies cursed with) F2 propagation. This briefly is the reflection of radio signals by the ionized F2 layer, some 200 miles above the earth's surface. The cosmic radiation from the eruptions on the sun, or sunspots, has a direct effect on the intensity of this layer. Since the F2 layer lowers at night, this mode is noticed during daylight hours, although propagation will "follow the sun", so to speak, allowing late evening DX from a Western direction. Propagation is usually possible as high as 44 mHz., although so far this year it has been as high as the six-meter band, 50 to 54 mHz. E skip usually occurs during the summer months and late December, early January. It is caused by ionized "clouds" in the E layer, 65 miles above the earth. Being lower, the skip range is shorter, usually about 600 to 1000 miles, although "double-hops" do occur. The "clouds" will build up during the day and skip will occur during the late afternoon and evening. It is heavily affected by weather, a weather front causing an intense or unusually long opening. The trouble is intense sunspots cause the E clouds to break up, explaining 1979's poor summer DX. Propagation by E skip will go well up to 70-80 mHz., so it's a good time for TV DXing as well.

The techniques

How do I get started? Well, the first thing you need to know is when the skip is in. In the winter, don't worry. It's in. During the summer you might want to keep one low-band channel in your scanner permanently. A good choice is one of 37 or 39 mHz. police channels, because the E-season MUF will usually go that high. (MUF means Maximum Usable Frequency, a misnomer because for DXing, a frequency is not going to be "used" for anything but listening. A better term would be Highest Frequency of Propagation, HFP, if youwill!) A few good channels are: 37.1, 37.18, 37.26, 39.1, 39.18, 39.82 and 39.9 mHz. These are shared with the Local Government Radio Service and are active in most areas of the country. 39.82 is my favorite and a good choice for a crystal scanner.

The stations

Once you've determined the skips in, you're set to DX. The best place for the beginner to start is the Fire Radio Service channels, 33.40 through 33.98 in .02 mHz. steps. They are most active in the east, so they are best for DXers in the West. They are listed in Police Call books, so the purchase of a couple of volumes for the areas you are receiving most often will enable you to easily identify them. The 37.0 through 37.4 and 39 through 40 mHz. Police bands are good choices; they are used in most areas. The 42-43 mHz. State Police band is good during E skip season, but with F2 skip the MUF will only be high enough in the mornings most of the time. Same with the 44.6-46 mHz. police and fire band.

Whichever band you pick, don't try to listen to the whole band. Search through a few times and pick the most active channels. Program them in and scan them, or just sit on one channel for a while. Don't give up if you don't have a stack of Police Calls. The first clue to the location is going to be the time you hear the dispatcher give at the end of a transmission. The time difference will tell you the

section of the country you are getting. The next clue will be the accents you hear. And boy, do some of them talk funny! (I guess they think the reverse is true about us.) Finally, listen for names of towns, counties, and state and interstate route numbers. Keep a road atlas handy. Remember that all interstate and most state route numbers with odd digits go north and south, even numbers go east and west. The lowest route numbers are in the south and west parts of the country or a state, the highest in the north and east. A little patience and you'll soon ID your station. Mobile telephones are easy DX. Most areas have two low-band channels, although they do overlap other areas. See Table 1. The operator will usually give the name of the city when she answers, such as "Pittsburg mobile", but failing that, note the area codes and cities mentioned, as they usually will be calls to the immediate area. A look in the front of the phone book and at a map will solve the problem. The miscellaneous business services can be interesting, but unless you can look up the call signs at an FCC office, you'll have a hard time IDing them.

When you are searching you'll find some scanners, like the 210, can't handle the number and strength of stations and produce a lot of intermodulation products, stations that aren't where you are getting them. One good idea, if you have two programable scanners of different brands, see if the other receives it too. Luckily, it seems like most IM products show up between authorized channels, 33.81, for example, between 33.80 and 33.82 mHz. You can rule these out. Table 2 shows the general low-band allocations.

If you're ready, you can go after the more exotic stuff. You'll find U.S.military interesting, some will even QSL. All the allocations in the Government bands are on odd digit increments, 34.01, 34.03, 34.05, etc. The exception is the older military equipment, which still use wide-band FM. They are usually spaced in 100 kHz. channels, 36.1, 36.2... This is where your tunable radio comes in handy. Wideband fm is more easily received on the relatively broad passband of most portable radios. Clip the antenna lead to the radio antenna, the shield to a ground point. Two popular Army air field tower frequencies are 40.2 and 41.5 mHz.

Foreign stations are something else again. Their allocations are very different from ours and they use the band for some entirely different services. Some South American countries use point-to-point stations for telephone service and US signals will skip down there and key them, then in return, skip back up to us, sometimes while people are talking on them! Canada even has police and business channels in what is our Government bands. I've heard wideband US Army stations keying up Canadian business repeaters. Of course, it's almost unintelligible. You'll also hear regular two-way radio traffic in languages you'll suddenly wish you could understand. Plus a great variety of other radio transmissions, radio-teletype, tone telemetry and so on. The 41 to 68 mHz band is allocated to broadcasting in most of the world. The audio portion of BBC 1 TV has been heard all over the east and midwest on 41.5 mHz. I've even logged it here in the Pacific Northwest. French channel 1 is on 41.25. Australian and New Zealand video "buzz" can be heard around 46-47 mHz. This again is where you should use a tunable, as TV signals are very broad. If you hear radio broadcasters below 41mHz. it's one of two things. It's either a studio-

to-transmitter link, or very often, a harmonic of a short-wave AM broadcast. AM modulation will be very weak on an FM scanner.

Your best overseas target is the US military. (Unless you are multi-lingual.) Of course, in a foreign country they can show up on any frequency. Look for them to show up between our regular police and fire channels, in our US Government bands, anywhere. Keep a world time chart handy. Two good targets for East-coasters are 31.8 and 33.7 (a fire channel, here), used by the US Army in Germany. For West coast DXers, the 33-34 and 36-37.5 areas have lots of US and foreign military activity from Korea and the Orient. In the East you should DX early in the morning, in the West, late in the afternoon. A lot of the stations you will find may come in every day for months, others for a week or so, then maybe never again. You might keep them programmed in for the time you're getting them well, if they're interesting, then tune for something new. Worldwide DXing isn't just for the Short Wave Listeners!

George DuBois

Table 1

35.26 - Id.,Or.,Wa.	35.46 - Ca.,Or.,Wa.
35.30 - Ar.,Ks.,Mo., Ok.,Tx.	35.50 - In.,Mi.,NJ., NY.,Oh.,Pa.
35.34 - Al.,Fl.,Ga., La.,Ms.,NC., SC.	35.54 - Ia.,Mn.,Mt.Ne., ND.,SD.,Wy.
35.38 - Ar.,Ca.,Co., Nv.,NM.,Ut.	35.62 - Ar.,Ok.,Tx.
35.42 - Il.,In.,Ky., Mi.,Oh.,Tn.	35.66 - Ct.,De.,DC.,Me., Ma.,NH.,NJ.,NY., Pa.,RI.,Vt.,Va., WV.

Table 2

30-30.55	US Government	40-42	US Government
30.58-32	Business, forestry	42-43	State police
32-33	US Govt.	43-43.7	Indust.,mob.tel.
33-33.4	Spec.emerg., petroleum	43.7-44.6	Motor carrier
		44.6-45.04	Police,forestry
33.4-34	Fire	45.04-46.04	Police,lcl.govt.
34-35	US Govt.	46.04-46.5	Fire
35-36	Business, mobile telephone	46.6-47	US Govt.
		47-47.42	Hwy. maint.
36-37	US Govt.	47.42-47.66	Sp.emerg.,Indus.
37-37.42	Police	47.7-48.54	Power
37.44-38	Power, Sp. emerg.	48.56-49.58	Petroleum,forest products
38-39	US Govt.		
39-40	Police	49.6-50	US Govt.,Part 15
		50-54	Amateur

International

Richard Stein, Editor

This column is for reporting two-way communications frequencies above 30 MHz, radio system details, monitoring experiences and any other information relating to monitoring in countries other than the United States and Canada. Send to: Richard Stein, 456 Barrymore Pl., North Brunswick, NJ 08902.

This month we have a number of new members around the world. We welcome them and note that these members represent a potential source of information not available anywhere else. It's for this reason that I have written each of our foreign members and have invited them to supply news about monitoring in their local areas and to tell us a bit about themselves. The prospect is exciting and I'm hoping for a positive response from these members.

A good means of increasing our access to foreign monitoring information is to increase the membership around the world. For this reason, the Board of Directors has agreed to offer a special lower membership rate of $10.35 to potential foreign monitors to encourage their joining. If you know of any monitors outside of the U.S. and Canada, why not invite to join and participate.

A note to all our members along our Southern borders and to those in the state of Florida. There is a good deal of radio activity in Mexico and Cuba. Havana is only 90 miles from Miami, and while this is bordering on skip reception,either Mark Lucas (Low Band Skip Editor) or I would welcome these reports. If you can't figure out what you're receiving, report the frequency and send a cassette (will return)- perhaps I can decode it for you. For those members interested in Mexico and want to know where to start- check either the Southern California Edition of "Police Call" or my article on monitoring in Acapulco in the August ? 1978 newsletter. Both sources list a number of Mexican stations and will give you a good introduction to Mexican monitoring.

Low band skip is active again, and while not meaning to intrude on Mark's territory, the frequencies listed at the end of the column have been active for the past few years. They are easy to spot because they are outside of our normal U.S. allocations and will stand out. This is only a small listing and I'm sending the complete list to Mark for his column. If you hear stateside State Police agencies coming in on frequencies that appear to be outside our allocations (e.g. 41.620) send them in. It's possible that these "odd" frequencies are outputs of South American repeaters. The inputs (such as 44.940) have been keyed by skip from the U.S. and these signals, along with local telephone signals in Spanish, are sent back out and skip back to us here in the States. Listen carefully and you might be able to log a super catch for yourself. Send the information into the Low Band Skip Column and I'll try to piece it together with what I've heard. That's all for this month-let's hear from you.

שלום

International (continued)

A SHORT LIST OF POSSIBLE FREQUENCIES FOR FOREIGN VHF RECEPTION BY SKIP

34.060	Language: Spanish	Probable Target Area: Guatemala	
34.100	French	Caribbean or Canada	
37.350	Spanish	Panama or Guatemala	
39.180	Spanish	station is "Parques Nacionales(National Parks) Caracas, Venezuela	
39.860	Spanish	Mexico (radiograms)	
40.460	Spanish+English	Venezuela:this is base "Santome"which works oil rigs probably somewhere in Venezuela. You will also hear Ohio, New Jersey,New Hampshire, Kansas, and Arkansas State Police. Input to this repeater is 44.940.	
41.550	Spanish	Panama	
41.620	Spanish+English	this is another "Santome" frequency + State Police	
42.925	Spanish	El Salvador	
46.070	"Biwi" English	Caribbean	

Miscellany

RCMA, P.O. Box 4693, Riverside, CA 92514

FCC FILE SEARCHES FOR A FEE

Two individuals/companies (and probably others) will apparently research FCC files for a fee. One charges $2 per listing and the other charges $10 per hour. If you are trying to find or trying to identify a particular station perhaps these companies can help you. Contact them for details of the services they provide (include an SASE): Radio Research Group, P.O. Box 7999, Statesboro, GA 30458 and Downtown Copy Center, 1114 21st N.W., Washington, D.C. 20037, (202) 452-1422. This is offered as information and is not an advertisement. Members who deal with either of these companies can write to the Newsletter to describe the quality and promptness of the services provided.

2 METER MONITOR NET

Karl (CA-OR-022) informs that there are hopes of a regular monitor radio listeners' get-together on 2 meters in Southern California on Saturday nights at around 10 PM. At last report, one such get-together had several participants. If you are a listener, tune in on 147.435 and if you are a ham, it's the WA6KOS repeater now on Santiago Peak, 146.4 in/ 147.435 out (reverse from what it was when on Mt. Wilson). For info call Karl, (714)-772-5451.

NEW MEMBERS (continued from page 36)

NY-	David L. Gelder, 198 S. Main, Portville, NY 14770
NY-	Stephen Dole, 4699 Berry Rd., Fredonia, NY 14063
NY-	Michael, Brooklyn, NY
NY-	Steven M. Tellis, P.O. Box 95, Wantagh, NY 11793
OH-	Robert P. Wrobel, 606 Carlton, Toledo, OH 43609
OR-013	Paul M. Wardell, 2104 SE 28th Place, Portland, OR 97214
PA-035	John H. Sullivan, 1504 Niessen Rd., Oreland, PA 19075

NEW MEMBERS (continued)

PA-	Gerald H. Shoaf, 321 Harvard Ave., Broomall, PA 19008
TX-024	Lorenza Busby, Jr., 3814 Vineyard Dr., Dallas, TX 75212
TX-025	Charles K. Storm, 215 Ave Maria, San Antonio, TX 78216
TX-	Mark, Huntsville, TX 77340
TX-	Hub Ratliff, 12866 Westella Dr., Houston, TX 77077
TX-	Enos Edward Gary, 423 E. Locust St., San Antonio, TX 78212
UT-	Greg Salt, 2258 Lambourne Ave., Salt Lake City, UT 84109
VA-	Buddy Johnson, Route 1, Box 57A, Ferrum, VA 24088
WA-	Matt Mercer, 3420 North 26th St., Tacoma, WA 98407
WI-013	Robert Beard, 1711 N. Mason St., Appleton, WI 54911
WI-	Tim Otterbacher, Rt. 3, Box 430, Delavan, WI 53115
CAN-024	Bob Strong, 3398 Mark Ave., Windsor, Ontario, Canada N9E 2X1
CAN-025	Adrian Thomas, Box 4569, Williams Lake, B.C., Canada V2G 2V6
ENG-	Larry Floyd, 61 Middlebrook Rd., High Wycombe, Bucks, England
ICLD-001	Johann Hákonarson, P.O. Box 439, 121 Reykjavik, Iceland

Note: The reason some members do not have membership numbers listed is that they are very new members and numbers have not yet been assigned. Each member can find his/her number on his/her first computer printed mailing label.

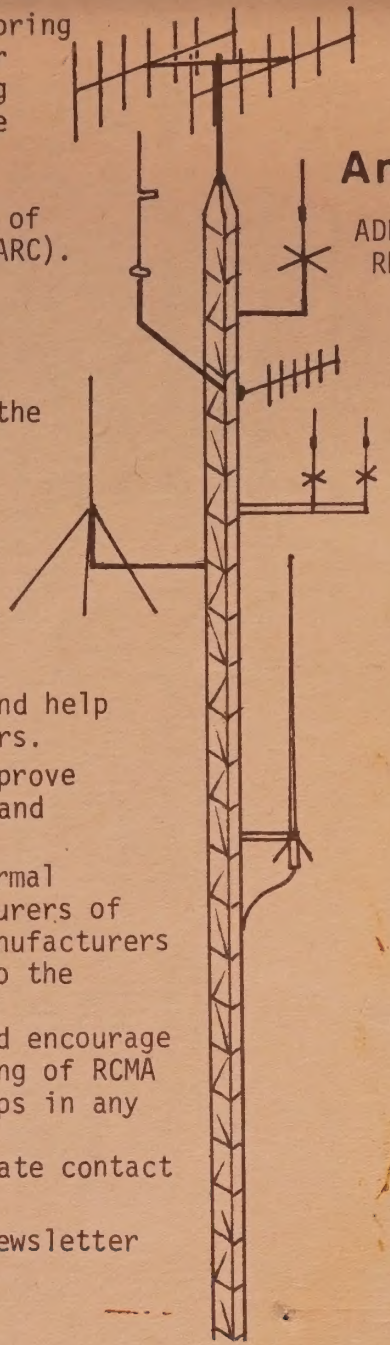
As of November 23, 1979,
RCMA had 1095 members in 48 states and 6 foreign countries

ALABAMA	3	MAINE	6	PENNSYLVANIA	35
ALASKA	2	MARYLAND	15	RHODE ISLAND	3
ARIZONA	10	MASSACHUSETTS	26	SOUTH CAROLINA	5
ARKANSAS	3	MICHIGAN	23	SOUTH DAKOTA	1
CALIFORNIA	488	MINNESOTA	11	TENNESSEE	2
COLORADO	7	MISSISSIPPI	2	TEXAS	28
CONNECTICUT	19	MISSOURI	11	UTAH	2
DELAWARE	4	MONTANA	1	VERMONT	1
DC	1	NEBRASKA	2	VIRGINIA	16
FLORIDA	31	NEVADA	2	WASHINGTON	11
GEORGIA	11	NEW HAMPSHIRE	7	WEST VIRGINIA	2
HAWAII	0	NEW JERSEY	31	WISCONSIN	14
IDAHO	1	NEW MEXICO	0	WYOMING	3
ILLINOIS	64	NEW YORK	66		
INDIANA	15	NORTH CAROLINA	8	BERMUDA	1
IOWA	9	NORTH DAKOTA	1	CANADA	23
KANSAS	6	OHIO	29	ENGLAND	1
KENTUCKY	3	OKLAHOMA	7	ICELAND	1
LOUISIANA	6	OREGON	13	NETH ANTILLES	1
				SAUDI ARABIA	1

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications above 30 MHz as a hobby. RCMA was founded in May 1975 and is a Full Member of the Association of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.



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